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READING AND WRITING IN THE TEACHING OF ENGLISH¹

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I am very glad to be the guest of the New England Association of English Teachers, and to find myself *here*. I choose this last phrase, because it indicates my state of mind after some perambulation on the streets of Boston in this part of the city. A German greeting would be appropriate to a stranger who attempts that task: *Wie befinden Sie sich?* And I know that, recognizing the conditions under which I have come to you, you will pardon my being a little behind the hour. In fact, my tardiness is a guarantee of good faith. You will pardon me also for coming to you without any preparation. I tried to make some preparation this morning out in the preacher's room at Harvard, but the boys whom I am here to serve kept me so busy that I had no time except to begin to write down half a sentence.

The object of the teaching of English in schools and colleges is not to make authors. In the first place, you could not do it if you would; and, in the second place, you should not do it if you could. No school or college can make an author. That is a matter which is in the hands of nature, under the direction of

¹A stenographic report of an extempore address to the New England Association of Teachers of English at their annual meeting at Boston University, March 9, 1907. It has been impossible to give Dr. van Dyke an opportunity to revise this report.

what Mrs. Partington once called "an unwise and unscrupulous Providence." There is some subtle balance of mental and emotional powers, some secret gift of insight or of outgo, some skill in feeling the relations of words to things, that can never be defined or reduced to rules, which makes a man or a woman an author—the possession of something to say, and the skill of knowing how to say it. Nor, if it were possible for schools and colleges to make authors, would it be desirable that all the boys and girls who go to our educational institutions should be directed into writing as a means of earning their livelihood. In the first place, the world would not support them; in the second place, the flood of books with which our intellectual integrity is somewhat threatened would be increased vastly, horribly; and, in the third place, the magazine editors would be driven either into an early grave or into a sanitarium. No, the object of the teaching of English in schools and colleges is something very much simpler. In its primary stages, of which I shall speak mainly this morning, the object of the teaching of English is to equip boys and girls to read good books more intelligently and more joyfully, and to use their mother-tongue correctly and to better purpose in the ordinary affairs of life.

Now, about the reading which is to be done in connection with this kind of English teaching. It should, in my opinion, consist of interesting books—I try to weigh every phrase—interesting books, suited to the age of the pupils, well written, and with a healthy human tone. I have been reading the leaflets, two or three of them, published by this association in connection with this subject, and I can only say that there has been so much said and so well said in those leaflets that there is really hardly anything left for me to say. Books of adventure, books of description, books which tell a simple story clearly and vividly, are those which are naturally most suited to young people. Nothing better than *Robinson Crusoe*, and the *Jungle Books*, and *Treasure Island*; and, as far as my experience goes, the right kind of girls like those books just as much as the right kind of boys do. Intropective books, analytic books, philosophic books, and especially highly pessimistic books, are unsuited for the consumption of

the young person whom we wish to keep in good intellectual and spiritual health. Those books may have their uses in the world, but, like *caviar* and *paté de fois gras*, they should be postponed to a later age, if they are used at all. For this reason I would not start my young people on Ibsen, nor on Bernard Shaw, nor on the modern British female novelist. The way in which these books should be read in the primary stages of English instruction, it seems to me, is somewhat different from the way in which they should be read later.

I note one very interesting paper among the leaflets published by this association, in which attention is called to the complaint made that, owing to the fact that Shakespeare is taken up in the high school and even in the grammar school, there is nothing left for the university professor to do. Well, all I have to say is that the university professor who finds nothing left for him to do has mistaken his vocation. But the study of a play of Shakespeare, say *Othello*, or *Hamlet*, or *The Winter's Tale*, or *Twelfth Night*, or *Julius Caesar*, in a preparatory school or in a high school which does not look toward college training, is quite different from the study of the same thing in a university course, and should be very much simpler, very much more direct, and guided chiefly with an eye to making the young people feel the fidelity of the thing studied, and get a clearly outlined picture before the mind—a better picture than the modern stage can give, much better—of that which the great master of dramatic poetry intended to show in that particular play.

Comparative literature ought not to be taught to school children. They cannot take it in, and you simply ruin their little digestions if you try to give it to them. Positive literature can be taught to them, literature as the reflection and image of life; and, in order to do that successfully, the teacher's attention, it seems to me, should be directed, first, to the story; second, to the elemental and creative trait in each character; third, to the relation of the action to the development of those characters; and, fourth, to the lesson which the work teaches. Now, that is all as simple as telling a child with whom you walk along the street, and who sees a man that has staggered and reeled blindly

across the street and been run over on his way across, why that thing has happened to that man.

Let me say, and let me say frankly and sincerely and honestly, that in regard to the best literature, the big literature, the great literature, the literature that is worth while, the literature that has lasted, and the literature that is going to last, you can never teach it rightly if you shut your eyes to the moral meaning of it. You cannot do it, because the moral meaning of it is the core of it, and the heart of it; and nine times out of ten the moral meaning of it is the thing for which the man wrote it. I do not mean as a catechist or as a preacher, but I mean as an artist in letters, seeking to embody in his poem, or his play, or his novel, or his short story, the eternal significance and the inevitable consequences of character and choice in this life of man.

You know a great deal more about the technical details of the way to bring out these things in the minds of the pupil—the structure of the story, the relation of the different parts, and so on—than I do, because I am a very young teacher. I have been a teacher for only eight years now. That is all the experience I have had. And the first thing I found out when I tried to do it was that teaching and preaching were two totally different things; because in the church where I used to preach, and where I still preach, and of which I am still a minister, where I preach every Sunday that I can get a chance to, in that church they do not allow anybody to answer back. In some of the churches they do, you know. But in the class, in the properly constructed class, of course everybody is allowed to answer back; and that changes the whole aspect, makes it very much more difficult, and in some respects very much more interesting.

In regard to poetry, I would begin with the teaching of English poetry, begin with the simplest things, and begin with the things that have a story only; and I would believe that those things which have interested so many people are good, no matter what the academic and anaemic critics may say about them. I think Scott's *Lady of the Lake* and *Lay of the Last Minstrel* are good; and I think that the English ballads are good; and I think that Longfellow's ballads and Whittier's ballads are good;

and I think that *The Vision of Sir Launfal* is good—nothing better. I find that those are good things to begin with. Then a little beyond that I would have a range of poems such as Tennyson's *Idyls of the King*, and some of Browning's simpler dramatic lyrics—the simpler ones, because I would not discourage a youthful student from the future enjoyment of Browning by endeavoring to begin it too young. Then, of course, I would use the lyric. Having begun with the narrative form, I would use the pure lyric also. The first poem that my little children ever learned, when they were from four to seven years old, was:

My heart leaps up when I behold
A rainbow in the sky:
So was it when my life began,
So is it now I am a man,
So shall it be when I am old
Or let me die.
The Child is father of the Man:
And I could wish my days to be
Bound each to each by natural piety.

I wonder whether you have ever fully appreciated the beauty of those last lines. It was my little boy who first brought it out to me. He was five then. He used to say it: "The child is farther than the man." I never corrected him. And there is an exquisite beauty in that last word:

And I could wish my days to be
Bound each to each by natural piety.

That does not mean simply by religious feelings. "Piety" is the old Roman word for reverence for one's parents, and Wordsworth, having said "The child is father of the man," says

And I could wish my days to be
Bound each to each by natural piety;

that is, that I, a man, might reverence that which is the father of my spiritual being in the purity and joyfulness of childhood.

That is what poetry can do for us. That is what poetry can say to us. That is the magic of poetry, by which it interprets those deeper, finer, nobler, purer, inward elements of our life which fools call unreal, but which are, after all, the only real things and the things that make life worth living.

Now, I must not talk too long; but a word about writing. Let me begin with a negative statement. I do not approve of the daily theme. It seems to me absolutely abnormal, unnatural, superfluous, and injurious. I know of no position in life in which one has to produce a daily theme, except that of the newspaper service, and that requires a particular and definite training which the newspaper men themselves will tell you schools and colleges cannot give. The ordinary or garden variety of the human being never has to produce a daily theme, except during that brief period when he or she is in the first glory of an engagement to be married, and then, if those two persons are so unfortunate as to be separated, it becomes necessary for each of them to produce a daily theme. But, my dear fellow-teachers, you need not worry yourselves about that, you can leave that to nature. Nature will take care of it. No, I think it is far more natural and far more simple and far more profitable to have perhaps a weekly theme, or perhaps a fortnightly theme, or something of that kind—and I will tell you, I will just give you my own experience in regard to it in dealing with perhaps a somewhat older class of students. I find it best to ask them not to take a long time in writing that theme, but to think about it, carry it in their mind, and then sit down, take an hour or half-hour, and write it as well as they can and let it go at that; with the idea that they shall get from the writing, and from such criticism as I may be able to give it, some encouragement to write better or some correction of their natural faults. That seems to me the best way.

And as for the subjects, all subjects are good, provided you will persuade your pupils to write about them naturally and spontaneously and frankly. You may take a subject which requires the pupil to go to the encyclopedia in order to find out the facts, but not to carry the paper and pencil to the encyclopedia. Get what you can from the encyclopedia and take it in. Then go away somewhere where there is no encyclopedia, into a happy land where the encyclopedia existeth not, sit down and put your thoughts and notions and ideas and memories and your knowledge and your feeling, whatever it may be, upon paper. I found

a very good way this winter was to ask men to read a poem, or to read it to them. (Let me say here, in passing, since you are allowing me to jump over the fence and go just where I please this afternoon, that all good poetry is meant to be read aloud. Any poem that is written is written to be read out loud or repeated or recited. That is the origin of it, and that is the idea of it; and until you have heard it, you do not know it, if it is a good poem. Of course, that is not true of some poems. But meter being an essential element of poetry—there is another subject, you see there is a big wide gate open there, and I might go out through that gate into a tremendous field—but meter being an essential element of poetry, you never get the full effect of it until it is read aloud.) As I said, I would read a poem aloud to these fellows that were working with me, and then ask them to sit down some evening when they had not the poem by them and write me a description of it, anywhere from five hundred to a thousand words. And by description I mean telling first of all what kind of a poem it is, what order it belongs to—this is for older students—then what meter it is written in, then what the subject is and where the subject came from, and then whether they like it or not, and why. Well, you would be astonished to see how some of those fellows succeed in digesting that bony structure of a descriptive paper and making out of it a really charming little expression of their knowledge and feeling about such a poem as "Mazeppa," or "Enoch Arden," or something of that kind.

Then of course, beyond that, one goes on into the comparative criticism, the question of sources and methods, and the question of metrical variations, and all that sort of thing, which belongs to the university life and not to school life. You have got to leave something for that poor university professor.

And then a great thing is that we should be able to get our pupils to understand the life and the power that there are in words—that words are living things, that they are not made, that they grow, and that they grow out of the heart and life of human beings; that words have characters and expressions just as you have characters and your faces have expressions; that all,

or almost all, possible shades of delicate and subtle feeling in our experience can be expressed by words, if we will only learn to treat them as living things, and remember the life out of which they have come, and join them to the life which we desire them to express. Oh, it will be a great service to render to the young men and women of the coming generation if you shall enable them to understand that rich inheritance which is theirs in this glorious English language, the richest—not the sweetest, not the most exact, not the most perfect—but the richest, fullest, most powerful instrument of expression that the human race, I think, has yet developed. "With all its faults we love it still." And if we don't love it, and if we don't love the great literature that has been produced in it, then, ladies and gentlemen, we have no business here.

THE BASIS OF AN EFFICIENT EDUCATION—CULTURE OR VOCATION¹

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I suppose we may take it for granted that the question which we are discussing refers, not to the 2 per cent. of the children who get to college, and not to the 6 or 8 or 10 per cent. throughout the country who get into the high school, but to the 100 per cent. of the children of the new generation. The old philosophy of popular education is embodied perhaps in that legend which appears on the Boston Public Library, and which was rather savagely criticized by John Burns when he was here: "The commonwealth requires the education of the people as the safeguard of order and liberty." We have left that theory pretty well behind nowadays. When we see, as we now see before the legislature, very promising movements in the way of empowering the Boston school board to provide nurses to look out for the health of the children in connection with the work of medical inspection in the schools; when we see another very promising movement before the legislature to place all of the playgrounds in Boston in the hands of the school board, in order that the playgrounds may be made a distinct and effective educational institution, we are beginning to see that education is conceived of in a larger light, and that its value is being measured from the point of view of the positive, constructive welfare of the whole community.

I think it is most important that we should remember that, by the very fact of our being here today, we are not of the 100 per cent., but of the 2 per cent. The point of view of the 2 per cent. has been ingrained into our minds from our earliest years. This question, however, as to the proper relation of culture and

¹ Read at the Sixteenth Annual Meeting of the Harvard Teachers' Association, March 2, 1907.

vocation in our system of universal education is one that, it seems to me, can be solved only from the large outside point of view of the present needs of the people as a whole. From that point of view, we are seeing more and more clearly the necessity of general vocational training. To a very large extent our school curricula presuppose the sort of life which existed at least a generation ago, when the shop, the farm, and the home were all important and effective institutions for vocational training. The educational power of this sort at the source of those institutions has to a very large extent been taken away from them. On the other hand, we have seen during the past generation an enormous multiplication of the resources of culture which are available to everyone. A generation ago the school and the church, reinforced by the home, were almost the only sources of culture. But nowadays the printing-press makes the most varied and vital resources of culture available to everybody. Therefore it seems as if the course of the times, so far as formal education is concerned, was shifting the emphasis much more strongly in a vocational direction, and perhaps taking the emphasis away, somewhat, from the cultural responsibility of our schools.

The old notion we had in this country that every young man of ability would somehow or other make his way into opportunity, we are not quite so sure of as we formerly were. We find that the very confusion and perplexity that is involved in the growth of the country embarrasses a great many boys and girls of real capacity in obtaining the right start in life. The hindrances that come to a very large proportion of boys and girls as they leave the grammar school, on account of economic limitations, or on account of the ignorance of their parents, prevent a very large proportion of those boys and girls from getting the opportunity of vocational training which their talents call for.

Then again another change in our situation—perhaps not so much a change in the situation as a change which is coming in our point of view with regard to the situation—is this: we are entirely too prone to take it for granted that the vast majority of working-people are engaged at tasks for which very little training is required. We are only beginning to realize that in all

forms of factory work there is needed a very considerable proportion of thoroughly skilled men and women. The demand for industrial training is coming from our employers very generally, and the growth of the correspondence schools, which has been referred to, in which there are now perhaps as many as a million young people in this country enrolled, shows that industry is making, not a decreased, but a very largely increased, demand upon the community for vocational training.

Is it not true that in those branches of education where young people are carried right through to a finish in a proper scheme of vocational training, the culture-training is more and more receiving its cue from the specific vocation-training which we see on at the end? And are we not finding that this change in the character of many of the cultural studies is fully as productive of discipline and broad training in the cosmopolitan point of view as was the older type of cultural course in which, sometimes at least, studies were selected distinctly from the point of view of their not being useful? I can remember when it was suggested to me, as a college student, that I ought to take certain studies simply because I was never going to make any use of them and did not like them. If my mind was not fitted to tackle that sort of study, that was a reason I should tackle it. Then again I think we are finding, more and more, that in the vocational studies themselves there is the highest cultural value, because only in the vocational studies does the will get its full outlet. When the full personality comes into that sort of wrestle with a subject which is involved in its being absolutely real to the student, then there are not only moral qualities but mental qualities which come to the surface, and which have often never been seen or known before by the teacher, or even by the pupil himself. It has been well suggested by Mr. Roberts that the full cultural value of a study comes only when that study is conceived and grasped with power on the part of the student. Now, certainly the vocational studies have many points of advantage in the way of accomplishing that final perfect cultural result in the mind and heart of the student.

Is it not true that for the best results in the life of the indi-

vidual it is of the highest importance that the culture studies should be closely articulated with the vocational studies? The humanities, so called, were recovered by the scholars of the Middle Ages, not because they represented that which would isolate them from the community, but because those men were seeking for something that was really vital, something different from the scholasticism of their times; and in their search they came upon the ancient classics as having this vital quality; so that the movement which we often speak of as the "Revival of Learning" is much more accurately connoted in the term the "Renaissance." It was a new beginning of life itself that they were seeking, and it was that sort of result which they got out of the ancient classics. And that fact is proved by the outcome of the Renaissance in the building of the cathedrals, in the development of town life, in the bringing about of the result that every workman in the mediaeval guild was in some sense an artist.

It was through the Renaissance that the guild craftsman got a new notion as to his vocation, and carried this cultural impulse into the practical work of everyday life. Nothing could be more injurious, it seems to me, than to conceive, as we often have conceived, of work as being merely a means. There is too great a tendency in the academic mind, I think, to feel that any person who is not going clear through the academic course with the professional-vocational course at the end, is getting that which, though it is aside from his work, is going to be more important to him than his work. To make culture a sort of bait by which men are tempted to work is demoralizing to the persons involved, and it is belittling both to culture and to industry. What we want out of education is a scheme which will bring to the surface just so far as possible the innate powers and capacities of every individual, and bring those powers to the surface in such a way that they will be seen by him in their setting, so that his powers will have the largest, best, and fullest meaning to him, and so that, as I have already suggested, the most ordinary workman shall have some bit of the conception of the artist with regard to his work.

In these days labor is more and more associative; and that

gives a far greater meaning and interest to work, makes work in itself far more truly cultural, than under the old system. Where the workman is trained vocationally not only to exercise his own individual skill, but trained in the art of associating with other workmen to produce those large accumulated results which come through association, these are peculiar opportunities of personal development in the vocational education. We have to realize more and more that the personality is the individual plus all of the relations and responsibilities that have to do with that individual's life; and only as we develop the life of the individual through these social relations and responsibilities shall we get at that individual and be able to draw out what there is in him and make him realize what he is himself. Only by getting the individual caught in the unexpected contretemps of life and work can we really get the individual's mental powers fully into action. And that peculiar quality of culture which we see in the case of many uneducated workingmen is the result of their having had this vital training through their struggle with nature in their work, and through their association with their fellow-men.

The George Junior Republic has the keynote of its success in the fact that those boys and girls, nearly all of whom have been bred to dishonesty, whose conception of social relations are suggested by that, are put to work, made producers, made earners. They learn the meaning of property and property relations, through the experience of their muscles, and through working and spending together; thus honesty becomes a real thing to them. It is through that sort of experience that we shall get the best and surest educational results.

We need therefore, as I have said, to look at this question from the point of view of the great social need that is suggested by the enormous waste of ability that comes about through the lack of specific vocational training in the rising generation. We need to realize upon the values thus wasted by them for the sake of the individual and for the sake of the community. We need to see that for training in citizenship we are making an enormous mistake in training too much the consumer-citizen and too little the producer-citizen. There is reality in the charge that the

public schools are educating children beyond their station, though that is a very mean way to put it. We must train the children of the rising generation to produce what is really valuable, and balance off the tastes that are being created in them as consumers with capacity, varied and thorough capacity, for producing the sort of values which we teach them to crave. When Charles Pratt founded Pratt Institute, his object was not to train mechanics, but to train citizens; and to him the best way in which to train citizens seemed to be to put a man upon a sound economic footing as a producer. In that way you create a sort of self-help and a sort of individual and social capacity, an equalness to emergencies, which is essential to the citizen in a democracy.

Thus our system of universal education must become a system of universal vocational education. Somehow or other every student who passes through the public-school system must have some measure of such applied exercise of his wits and his skill as will enable him to enter at once into productive industry. The shop does not give that training any more. The home, even in the country, gives it but very little. The school, therefore, must undertake the work. And, as has been suggested by Professor Kennelly, however long or however short the course of education may be, there must be a logical, cumulative articulation of studies that will lead up to and culminate in the vocational training. The school can do this work; that has been demonstrated abroad; it is being demonstrated here. We more and more see that there is a period just after the end of the present grammar-school period—a period of perhaps two years, if not a little more—when the young person is of little or no value to industry. More and more the employer in a skilled industry is refusing to take a boy on until he is sixteen years of age; that boy has not physiologically come into the condition where he is capable of assuming the responsibility of productive work. But those very years are among the best years for educational purposes, and in some respects at least for purposes of vocational education. The time is coming very soon when we are going to see that this practically wasted period has got to be made use of for the purpose of training for livelihood. The risk of making a false choice

has been suggested. Undoubtedly there is such a risk; but that risk, from the point of view of the community, is manifestly a slighter consideration than the present great loss that is coming to the community through the lack of providing vocational opportunities even at this early period of from fourteen to sixteen.

We need, from the point of view of the community as a whole, a democracy of experts. The greatest criticism that is made against democracy is that it does not trust the expert; that the inefficient man, the ill-equipped man, is put into a position of responsibility sooner than the man who has had the training. One great reason for that is because we withhold from the great majority of our citizens the experience of having training, the experience of having their nascent skilled capacity brought to the surface and made available to them and to the community. When we can bring about a universal system of vocational training, then we shall have a democracy that will know how to trust the expert; and we shall then have that best sort of aristocracy—the aristocracy not of the educated, not of those who have chanced on educational opportunity, but an aristocracy of the truly educable. When we can create a sufficiently sensible and complete scheme of education so that the inborn capacity of every child shall be properly elicited and made available, then we shall have a kind of aristocracy that will be final and will represent the complete triumph of democratic education.

And then, in conclusion, if we can, even in a small degree, bring about an educational system of that kind, the social result will be so great, in the way of duplicating and reduplicating intelligence, refinement, and culture, that the demand for culture, and for a supply of all things that go to uplift and refine human life, will be far greater than it is under our present system of education. We have been endeavoring to reach out after the results of culture as a thing in itself. Culture is something that cannot be sought in that way; it is like happiness; it must be come at indirectly. Through a universal system of vocational training we shall attain the highest culture.

THE BASIS OF AN EFFECTIVE EDUCATION—CULTURE OR VOCATION¹

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The writer presents this paper with some diffidence; because the subject is largely of a technical character appealing with particular interest to experts, who have become versed in the wide field of education by special pedagogic training, peculiar facilities for acquiring expert educational knowledge, or long experience in teaching. The writer lays claim to none of these qualifications. Occasionally, however, the views of a non-expert on a subject may be of service to experts, by reason of accidental conditions of view-point that are not likely to be occupied by those who work in the midst of a certain stage; but which may happen to be offered to spectators in the gallery. Moreover, in so far as the subject is not wholly of an expert character, but appeals to the consideration of teachers in general, or of citizens at large, it admits of being dealt with in non-expert fashion.

Much difference of opinion exists as to the meaning of the terms "education," "effective education," "culture," and "vocation." These terms are used in different ways even by experts. Since there can be little hope of reaching either useful agreements, or useful disagreements, unless some provisional basis of formulating discussion is provided, a few preliminary definitions of these terms may be first considered. These definitions may neither be correct, from an expert standpoint, nor even generally acceptable; but at least they may serve as the temporary foundation for a thesis.

In the broadest sense of the term, education may be admitted to mean the training of the faculties, or any of them, for any assigned purpose or purposes. The faculties considered cannot

¹ Read at the Sixteenth Annual Meeting of the Harvard Teachers' Association, March 2, 1907.

be limited to mental faculties, but must properly include physical, moral, and emotional faculties—i. e., all faculties. We can judge of the training of the faculties, in ourselves or in others, only from the standpoint of some particular purpose or purposes. A training of the faculties which may make a man into a splendid dispenser of truth, behind the counter of a railroad-station information bureau, might be very inadequate for the dispenser of lubricant, who works in the locomotive roundhouse of the same railroad station, preparing the hungry and thirsty engines for their daily toil. Purpose is as necessary to the determination of education, as education to the determination of purpose.

The most general and fundamental of all human purposes is the maintenance of existence, and, in the broadest sense, everyone who lives has become educated from the standpoint of the elementary physiological faculties, and this general purpose. The mere maintenance of healthy existence involves the education of the subconscious vital centers, by long and patient training. Premature death of the individual is the penalty attached to failure of his lower brain to learn its lessons within the allotted season. In view of unhygienic environment, or of defective heredity, how much harder are the problems which some young brains have to solve, under penalty of dissolution, than those presented to healthy children reared among healthy surroundings!

In the dark long ages of the individual and disunited struggle for existence, animals, and especially human beings, have become educated by the school of necessity for the purpose of surviving, and have, under that education, developed various activities and propensities. The sense of smell, for instance, has become highly trained in hunting-dogs. From a consideration of olfactory sensibility alone, for the purpose of detecting and pursuing prey, a well-trained fox-hound or setter is much more highly educated than any ordinary human being. If the dog's mental faculties were as much more developed than man's as are his smelling faculties, we might expect the places of dog and man to be mutually reversed in the conduct of our lives.

If we accompany an aboriginal Indian through some remote forest, we are constantly reminded of his wonderfully trained

powers of observation and judgment concerning the wild and woodland environment where he does business in the manner so minutely described by James Fenimore Cooper. His senses are wonderfully keen, as are likewise his simple sense-memories. His muscular co-ordinations have also been marvelously trained for his particular mode of securing a livelihood. From a consideration of these particular qualities only, and with reference to this particular purpose, the wild Indian is a highly educated man; although from other considerations, and for any superior purposes, we might be compelled to describe him as a savage.

Proceeding in the direction of increasing mental activity and complexity, we may descend a coal-mine and visit a coal-miner working at his avocation in a deep seam. He may never have learned to read, and yet his skill and judgment in the work of drawing coal from its long sleep in the lap of earth, and bringing it up to the light of its parent sunshine, seem to us wonderful. Such a man, judged from the standpoint of this particular art alone, and for this exclusive purpose, is highly educated; although from other standpoints, and for other purposes, he may appear very uneducated.

Nevertheless, it is customary to speak of education in the unnecessarily limited sense of training the intellectual and moral faculties for the general purposes of human life, and especially for the intellectual and moral purposes. This limitation of the definition is justifiable in the sense that all that is greatest and most noble in man is found associated with mental and moral attainments. As the idea has been expressed by one well-known writer: "In the world there is nothing great but man, and in man nothing great but mind." The great leaders of men are generally of large intellectual caliber and achievement. A few such men modify the lives of their contemporaries, by deed, or by inspiration, more profoundly than many generations of less gifted folk. The greatest men of the world have manifested their superior powers in a vast variety of ways, such as in art, commerce, literature, production, science, statesmanship, and war. In view of the enormous benefit that these men have contributed to the progress of the race in these various ways, and of the enor-

mous importance of stimulating successors to their tasks, we seek to open the channels of mental development along all of these lines, so that young people may be trained for such purposes. We try to discover what are the mental qualities that make men distinguished along any particular line, and also to discover what process of mental training may best be followed by each individual young person, in order to secure as far as possible the best results. We are forced to admit that great mental, physical, or moral aptitudes are inherited, rather than acquired; but we also recognize that training is capable of developing, in a marked degree, whatever aptitude each individual may possess.

The purposes which determine the value of an education are the purposes which one lives for, or that one should be properly regarded as living for. An education is efficient which, when judged from the standpoint of the particular duties falling to the individual, enables those duties to be fulfilled effectively and satisfactorily for the purposes with which the individual is properly to be credited in the conduct of life. The proper purposes of life are estimated differently from age to age, according to the prevailing philosophy of the time; so that the most efficient education that we can conceive of today might be estimated as inefficient at some later date, when the purposes for which we live shall have undergone popular revision. Nevertheless, it will be generally admitted in this our age that a human being owes two duties to life. One is toward himself, and is that he shall seek enjoyment in living. The second duty is toward his fellows, and is that he shall seek to make living enjoyable to them. The first duty is personal, and the second altruistic. The greater the clashing and interference between these two oppositely directed duties, the less efficient a member of society the individual is likely to become, and also the less contentment and happiness he is likely, in the long run, to secure. On the other hand, the more nearly these two oppositely directed groups of duties can be harmonized, so as not to interfere with each other, the greater the probable efficiency and ultimate happiness of the individual, both as a unit and as a member of society. The only way in which the two duties can be simultaneously conducted without

interference is by training the mind to enjoy indirectly the doing of certain useful things directly for others, and also to regulate personal enjoyment so as not to enjoy what is detrimental to others; but, on the contrary, to make direct personal enjoyment contribute indirectly to the enjoyment of others. The training which leads to the performance of duties for others is essentially vocational training, and the training which leads to the performance of duties to oneself is essentially cultural training.

In its primitive form, vocation is the duty of life to others, whereby living is made happier for them, and culture is the duty of life to oneself, whereby living is made happier for the individual. In an early stage of training the two duties are readily defined and separated. It is sufficient, in an early stage of development, that the individual be trained to perform some duties or business for others, whether he enjoys the performance or not, and also that, consistently with those duties, he shall enjoy himself in any manner that shall not give offense to others. But in higher stages of vocational and cultural training the two duties and states of action blend and merge. The training to vocational duties brings pleasure to the individual; so that he enjoys his work. At the same time, the training to cultural duties causes him to seek beauty in all that he examines, in order to enjoy the beauty perceived, and to find sympathy with some quality in every life, in order to rejoice in the sympathy discovered. Consequently, in a highly trained individual, culture and vocation, instead of being alternately and oppositely evidenced, becomes so closely associated and codirected that vocation is alike the duty of life to others and a necessity for enjoyment; while culture is that duty of life to oneself whereby the highest and noblest aims are sought, the beautiful and the true recognized, and the best and worthiest deeds performed. In this association the individual's vocation or external activity becomes permeated with the essence of his culture, and his culture, or internal activity, becomes enriched with the fruits of his vocation. The highest vocational and cultural development is purely ideal; for it would call not only for a state of civilization higher than

that in which we now live, but also for an indefinitely highly developed intelligence. A person of the highest vocational and cultural development would have to enjoy complete physical health. He or she would possess almost supernatural intelligence and perception; would take the keenest delight in everything seen or everything undertaken; would find sympathy with everything that lives, or finds expression; would take delight in the business as well as in the amenities of life; would always act promptly, intelligently, sympathetically, earnestly, fearlessly, devotedly, and in a business-like way. No such ideally perfect being perhaps exists; but cultural and vocational training aims jointly to produce such qualities, and according to the measure in which we find such qualities attained do we estimate the culture and vocation of ourselves and of each other.

Having provisionally offered, as above, definitions of the principal terms in this discussion, we may next consider what training may be expected to produce the most efficient education. No single and definite answer can be given to this question, on account of the infinite number of types of individuals to be trained, and also of the enormous number of vocations that the world requires and provides. The answer to the question depends upon the particular individual to be trained, and also upon the vocation which he will take up. A training which might be very efficient in the case of the young American who becomes a sailor, for example, might be much less efficient in the case of a similar pupil who becomes a salesman. Up to a certain point we may all agree that the two trainings may advantageously be identical. We may also admit that in particular types of pupil if one and the same training were followed for both vocations, the youth would be enabled to do well either as a sailor or as a salesman. Nevertheless, most persons will agree that the best training for the average type of pupil should be differentiated after a certain period. The boy whose vocation is to be at sea should finally be trained most efficiently in one manner, and the boy whose vocation is to be in the business of distribution should finally be trained most efficiently in another manner. It is a fairly common belief that the differentiated final portion of the training

which fits each pupil for his special vocation is entirely vocational, and that the earlier general training of the undifferentiated type is entirely cultural. This may be a convenient classification for descriptive purposes; but logically and practically it is a classification that cannot be maintained.

The elementary training in reading, writing, and arithmetic which forms the basis of primary-school education in all civilized countries, is properly regarded as cultural training, because training in these subjects underlies the training in all the more advanced cultural training. Nevertheless, in the earlier history of European civilization, and in the present development of Asiatic civilization, these subjects are vocational. In some parts of Asia today a pupil learns reading in order to be a professional reader, writing in order to be a professional scribe, or arithmetic in order to be a professional accountant. Surely it would not be fair to say that the cultural training in reading, writing, or arithmetic is necessarily either forfeited or restricted in the case of such pupils as may receive instruction in these subjects merely for a vocational training. Nor is it necessary to carry our thoughts to Asia, in order to confront the same question in modern everyday life. The arts of reading and of writing are essential to practically all of the vocations which exist in modern civilized society. Consequently, training in reading and writing may properly be regarded as vocational training, in the sense that these arts are necessary elements in practically every vocation. Again, arithmetic is stated in the official register of the Scranton International Correspondence Schools as being a course taken by 96 per cent. of all the pupils at the beginning of their instruction in that institution. The instruction which they receive is essentially vocational, in view of its purpose to fit pupils for various businesses. The school and the pupils manifestly regard arithmetic as a subject of commanding importance in the training offered and followed. Can it be maintained that arithmetic which is learned for vocational purposes is necessarily deprived of the cultural effects which we all recognize that it possesses when learned in the ordinary school?

There are some who say, however, that the subjects of read-

ing, writing, and arithmetic may not properly be divided into cultural or vocational classes, because these are so fundamental and so elementary. They say that the differentiation of subjects into cultural or vocational classes necessarily and properly exists in more advanced studies. In response to this contention, it may be conceded that the general influence of a training in certain particular studies may be more vocational than cultural; while in other particular studies the general influence of the training may be more cultural than vocational. These respective tendencies are, however, not to be attributed to the particular subject but to the manner in which the subject is studied, as well as the purpose for which it is taught. In other words, whether a pupil gains more training in his duties to others, or in his duties to himself, in the study of a given subject, does not depend on the nature of the subject, but depends on the mental attitudes of the teacher and pupil with respect to the subject; that is, upon the purpose for which it is taught, and the purpose with which it is acquired and utilized. If the subject is taught and learned for vocational purposes, the effect of the training will probably be vocational mainly and directly; but cultural also indirectly and subsidiarily. If, on the contrary, the subject is taught and learned for cultural purposes, then the effect of the training will probably be cultural, mainly and directly, but vocational also indirectly and in lesser degree.

As an illustration of the above proposition, let us take the subject of osteology, as a subdivision of anatomy, which is usually regarded as an eminently vocational study. If studied as mere osseous topography, by a student of surgery, for the purpose of becoming accurately acquainted with the organization of the human skeleton, its effect as a training may be mainly vocational. But if osteology be studied by an art-student for general culture, and in order to appreciate and enjoy figure-painting; or if it be studied by one who is interested in geology as a general culture, and for the purpose of understanding and enjoying the science of fossil analysis, the effects of the training in osteology may be mainly cultural. Moreover, if the pupil who took osteology as a vocational study, in order to train as a surgeon, later changed his

business to art or to geology, the effect of his training in the subject would still be mainly vocational; but if he changed it, say, to something in which anatomy can play only a very subdued part, as, for example, the business of fire insurance or piano-tuning, the effect of the training in anatomy would be mainly limited to its cultural effect. No one who considers the manifold and important relations of anatomy to the arts, sciences, and amenities of life can doubt its capability for cultural effect if studied for such a purpose.

On the other hand, let us consider, as another example, some branch of classical literature, say the study of the writings of the great poet Homer. Such a study is usually regarded as eminently cultural. We must all admit that, if Homer be studied and taught in the original Greek, for the sake of the training in memorizing beautiful language, in appreciating fine poetry, graceful expression, artistic rendering of historical events, and sympathetic portrayal of human emotion, the principal effect of the training will be cultural. In so far, however, as a graceful and forceful literary style in writing English may be needed in any intellectual vocation, the training in the Greek writings of Homer may be incidentally vocational. Moreover, if a student, in order to comply with the requirements of a certain vocational training, has to pass an examination in Greek literature, his study of that subject may be partly vocational. Finally, if he studies Homer in order to become a teacher of Greek literature, whatever cultural effect he may derive from the training, the effect of the training will be essentially vocational.

In the same manner, we might consider, in turn, each and all of the subjects which form the medium and support of mental intercourse between teacher and pupil. In every case the subject studied is in itself neither vocational nor cultural, except in relation to the mental attitudes and purposes of the two minds engaged on it. If it is taught and learned essentially as a training of the individual in his duties toward himself, the essential results of that training will probably be cultural. If it is taught and learned as a training in his duties toward his fellows in

his life's business, the essential results of the training will probably be vocational.

As a corollary to the above proposition, it may be asserted that no educational subject is of greater magnitude, interest, importance, or prominence than another, except in reference to some particular purpose or purposes. In other words, all subjects are equally great, noble, or important, as they exist in nature, and aside from human needs or demands. This is but another way of saying that the material universe and the world of consciousness are each infinite, and any part or aspect of them must therefore be limitless, if no artificial barrier is inserted to cut the part off from association with its surroundings. All truth must be infinitely one and the same, as our minds conceive of it, no matter from what direction we approach it. If subjects are defined in so limited and narrow a fashion as to prevent the mind from traveling in them, it is conceivable that one might be regarded as larger or worthier than another; but unless so artificially restricted, the limits of a subject are only determined by the limits of the intelligence that envisages it.

As soon as we take into consideration the aims and purposes of individuals, subjects align themselves in the order of relative importance. Each business or vocation has its special group of important subjects. From a vocational standpoint, subjects and studies have very different values. A school which specially prepares pupils for a certain vocation necessarily selects the particular subjects that it deems most important for that vocation. Vocational schools in this sense must perforce be somewhat narrow and one-sided. Thus a textile school, a musical school, and a school of pharmacy must be special and limited in their training, if they are to be vocationally successful. Just as economy appears in nature to be limited to the processes of organic life, and economy exists but for living purposes; so the selection of subjects for vocational training, which is but a particular manifestation of economy, finds its necessity for living purposes alone. On the other hand, there is no subject which is valueless for cultural training. Any subject, when suitably taught and suitably learned, may be made to contribute to the training of an

individual in the duties he owes to himself; or may become a cultural subject. A vocational subject may be used also for its cultural effect; but a cultural subject may have to be excluded, by reason of the necessity of selecting vocational subjects, at a certain period of schooling.

In order to recognize the cultural value of essentially vocational subjects, we need only observe that the most eminently cultural subject is the vocation of a certain section of the community. If we take the treasures of a picture gallery, with its abundant suggestions of beauty and sympathy, these pictures are the vocational study of artists. It cannot be maintained that pictures exert a cultural effect only upon those who do not produce them. It is evident that a great picture cannot be produced by an artist unless its cultural influence lay in the artist's soul. "If the Lord has not first given it to him, he cannot give it to us."

If we visit a great exhibition, we are conscious of the strongly cultural influence of its artistic and scientific collections. Each of the objects exhibited has been someone's vocation to produce. We cannot arrogate to ourselves the belief that the cultural influence of each object was denied to its producer.

Not only may a vocational subject serve for cultural training; but cultural influences may be considerably extended for each individual, through the medium of his vocational training. In fact, many individuals seem to be dependent largely upon their business for cultural influences. The more we know about any particular object, the more readily we are able to detect its salient features, to be interested in it, and to respond to it intellectually, so as to recognize its beauties. A striking evidence of this is presented by visits to successive international exhibitions. Those of us who spent, say a week, at both the Chicago World's Fair of 1893 and the St. Louis World's Fair of 1904 will probably remember that a marked advance was manifested by the latter exhibition, in those directions of art or of industry with which we are each identified vocationally. In our own particular vocational lines, we observed with interest and keen delight that eleven years had brought about a very notable advance and

development. In matters with which we had a lesser degree of acquaintance, it probably seemed as though there had been less change; while in matters of which we were ignorant, it seemed as though there had been no change or improvement whatever. Nevertheless, when we happened to meet a specialist in some subject of which we were ignorant, we probably found that he was enthusiastic upon the great change and development that had occurred in the line where we could recognize no change; whereas he was silent and doubtful as to whether any improvement could be vouched for among the objects within our own vocational acquaintance. In such cases it is evident that the degree of cultural influence depends upon the limits of vocational training.

Seeing, then, that cultural influence is to be derived from vocational training, how early in the training of the individual should vocational training commence? How much of his training should be generally cultural, and when should this give place to vocational training? The answers to these questions will depend upon the conditions of each case, with respect to aptitude, vocational inclination, and economic necessity. For any given pupil each teacher will have his own views, as modified by his philosophy, as to the nature and functions of mental training.

It is generally recognized that education should conform to the dictates of physiology and of psychology. As soon as we shall have arrived at a clear understanding of what physiology and psychology dictate, in regard to the education of the young, we shall all be able to agree upon a proper and scientific way of conducting education. Meanwhile we take the best course that we can in view of experience through many generations, aided by such results as physiology and psychology have already made plain.

Most of us will admit that muscular development should precede mental development in its early stages. The child should have ample opportunity to develop the motor areas of its brain by the muscular action which the child calls "play," and which it so greatly enjoys. The mental development, assisted by educa-

tion, is built later upon the basis of the motor development in the brain areas.

The mental training of education is perhaps capable of effecting three different stages of result, each of which may be recognized subjectively, and may be imagined objectively. The first effect is in the direction of mental concentration, or the training of the body of the brain. The second effect is the development of memories and the retention of concepts, or the training of the mind. The third effect is the development of the interconnection between ideas, and the formation of compound ideas; or the training of the soul. All of this analysis is more or less of a speculative character, and may invoke much dissent. If, however, the speculation can be made to serve a useful purpose, and does not set itself in opposition to facts, it may be provisionally entertained.

We may suppose that the first effect, or the effect inducing mental concentration, may be accompanied by a partial voluntary control of the circulation in the brain; whereby certain areas may be physiologically congested at will, and other areas temporarily deprived of activity. Under the influence of mental training, it becomes possible to concentrate attention upon a subject, to the partial or complete exclusion of other subjects. This greatly increases the powers of the mind. Concentration of thought is more readily acquired by some pupils than by others. By some it is learned at a relatively early age; while others never acquire it, to any appreciable extent. Concentration is a characteristic of all active brain-workers, and perhaps it is correct to say that all individuals of great mental power manifest this characteristic in a marked degree.

We may suppose that the second effect, or memory-training, consists in storing up impressions in the brain centers—perhaps the fibers of brain-cells—in such a manner that these impressions may be recalled at will. It is these available memories of impressions which constitute mental wealth. Upon this stock we have to rely for our inferences and judgments. The nature of the stock, the assortment of the memories, will depend upon the life that has been led, upon the environment of the individual,

and upon the nature of the subjects to which his attention has been closely directed. The process of memory storage we know to be continuous throughout the healthy life of the brain. Nevertheless, it is doubtful whether after a certain epoch usually occurring in adult life, it is possible to accumulate new memories, without obliterating old ones to make room. Prior to this epoch, the brain may be considered as a fresh page for the reception of impressions, but after this epoch only as a palimpsest. It is reasonable to suppose, however, that early training may not only store memories effectually, but also enlarge the storehouse; so that the number of memories that an individual is able to accumulate through life may be increased by mental training in school days.

We may suppose that the third effect, or the development of interconnection between ideas, consists in developing suitable interlinking or interweaving of brain-cell fibers. We may picture to ourselves that, as the fibers grow and ramify, they will come into contact, and unite in such a manner that the activity of one will convey a stimulus to the other. Casual unions of this sort, which result in harmonious sympathetic reaction, will become permanent; while those that are useless, or dissonant, will atrophy and cease. We tread here on very dangerous ground, so far as concerns scientific support and foundation. The true physiological picture of the building-up of association among ideas may be very different; but, unless the picture here outlined is grossly misleading, it may serve provisionally as a diagrammatic sketch. We may assume that a principal effect of cultural training is to bring about an abundant interweaving of brain-fibers, whereby any active impression awakes a sympathetic association of impressions in outlying mental areas. Consciousness of sympathy, and recognition of beauty, are thus evoked by all normal suggestions. It becomes impossible normally to excite the highly cultured mind without arousing sentiments of beauty, interest, happiness, and sympathy.

This effect of cultural training should be fostered by all influences that awaken harmonious and noble association of ideas, so as to stimulate the union of appropriate juxtaposed brain-fibers, while tending to kill by disuse all casual unsuitable

blendings. Each time a mental stimulus runs across a certain union, that union may be regarded as strengthened for future communication; while every time we succeed in arresting a train of thought across a junction, we tend to make that junction more difficult, to obscure and obliterate it. We must expect a highly organized intellectual meshwork to be largely an inherited characteristic. Souls, as well as minds and bodies, are communicated from parents to children; yet training of the soul should be as effective in developing it as the training of the body or of the mind.

A highly developed interconnection system of brain-centers would seem likely to require a highly developed system of individual brain-centers as a basis. In other words, a large stock of impression memories is essential to a potent system of associations of ideas. The memories may be of any kind, and may have been developed either by cultural or by vocational training; but for the best association system they should perhaps be multiform; that is to say, the stock of memories should be as varied as possible, in order to produce the richest blending capacity.

If the above propositions meet with even partial assent, we shall probably agree that school education is directed to producing all three above-mentioned effects, or the training of the brain-body, the mind, and the soul. There is no subject taught which does not permit of training the brain-body, or mental concentration, at least in some degree. There is no subject which can be taught which does not train the mind by exercising memory, in some direction or directions. There is no subject taught, which, rightly apprehended, is incapable of training the soul, at least in some measure. The number of subjects must however, be limited, because teachers are limited in number, school days are few, and life is short.

Theoretically, if all pupils had the same inherited capacity for training, the same measure of mental health and strength, similar inclinations, and similar means of support, each and all should be educated through all school stages commencing with the kindergarten and ending with a college and a vocational school. If all persons were capable of equally high training,

there would be no reasons why the lowest and least responsible duties for the community should not be undertaken by highly educated men and women. On the contrary, there are abundant reasons why they should. The better educated the person who fills a menial position, the more efficiently will the work be done. As a well-known prison governor once remarked: "It takes brains and training to make a properly conducted convict."

We know, however, that the inherited capacity of different individuals for mental training differs enormously. At one end of the range we have pupils with genius like that of Gladstone and a host of compeers. At the other end of the range we have the feeble-minded and paretics. The average of a thousand, or better still of a hundred thousand, pupils, drawn from the same community, is the only reliable entity to depend upon conjecturally. The average duration of the school period, in the whole United States, is estimated at present at about six years. There can be no doubt that many thousands leave school early for the duties of life, because of economic family difficulties, and some because their training has been ineffective. If we excluded those who leave because of economic necessity, and those who have missed the aim of mental training, it may be safe to say that the remainder drop out of school when school ceases to train them further according to their own estimate. The cup of one pupil's capacity will run over in four years of training; while that of another will hold and utilize the measure of twenty years' diligence in study.

In view of these elemental facts, it is idle to hope for any uniform system of cultural training, leaving aside the necessary diversities of vocational training. We can only hope for a system of general education so flexible and extensive that each pupil's case can be fairly provided for.

We want each individual to go out into life prepared to commence its duties. This means in modern life the acquisition of at least the elements of a vocational training. We want first a general training for culture, and also for a basis of vocational training, and then we want the vocational training at the close of the school training. If pupils cannot select a vocation, then they must

either be directed by their friends to choose a vocation, or they must finish out their education so far as it goes in general subjects, and leave their vocational training to business life. In some cases, and with some persons, this is no great loss, or detriment to subsequent utility and effective vocation. In other cases, and with other persons, it is a serious drawback, and produces serious discouragement. In general, it would seem desirable that the last quarter of each pupil's schooling should be in a vocational school. Thus, if a pupil commences school at the age of six and ends at eighteen, the last three years might be in some vocational school. This question of relative duration of training in vocational schools or non-vocational schools must, however, be a matter of personal opinion and personal judgment. There can, of course, be no rigid rule.

We need every kind of school—the day school, night school, correspondence school, kindergarten, primary school, grammar school, Latin school, high school, normal school, manual-training school, art school, technical school, secondary school, special school, college, professional school, and graduate school. We want more vocational schools of different types, and as many as will, in the broad sense of the community, pay for and justify their creation. Each type has its own value and share of work to do. Moreover, we want to hold out a hand of sympathy and help to the vocational schools, because they are all comparatively juvenile, and have grown out of the industrial needs and demands of the last hundred years. We do not need to be told that non-vocational schools of the classic type can train good citizens. Experience over many decades assures us of this fact. But we need time to demonstrate fully, what we believe, that equally good and valuable citizens can be trained in the vocational schools or industrial schools. It is only reasonable that the rapidly increasing complexity and specialization of industrial life should call for corresponding complexity and specialization in its preparatory training.

Finally, we ought to hold out the hand of encouragement and welcome to such pupils as may desire to pursue a longer and higher educational training after having taken a vocational train-

ing. The lad who has trained at the business school or the manual-training school ought not to be deprived thereby of the opportunity of going to college, if he should so desire. Ordinarily, the vocational training should come at last, and the higher the final training, the broader and deeper should be the foundations; but in cases where young people have taken training in vocational schools, the faithful performance of their work should open and not close the door to the college, if they should change their minds and seek further instruction. It is not so much the kind of work that we do, but rather the satisfactory accomplishment of it, that is our title to recognition and encouragement.

THE BASIS OF AN EFFICIENT EDUCATION— CULTURE OR VOCATION

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If we are to oppose vocation to culture in this antagonistic fashion, the question seems to be simple enough and to admit of an unhesitating answer from any reasonable person. Left unqualified, it is an impossible alternative. Every man must live, and comparatively few but need to earn their livelihood. Hence there is no possibility of a choice which would leave a man without means. He must earn his living, and for this needs a vocation. Viewed thus baldly, vocation is a necessity, culture a luxury. Some years ago a teacher of the classics in a large private school was endeavoring to improve the quality of his work by subjecting his pupils to tests in sight-reading. But the headmaster of the institution observed that many of the pupils failed at first to gain satisfactory standing in these tests upon unfamiliar material; he therefore called the teacher to account and demanded his reason for his method. When the teacher replied that he taught for power, and believed that in this way only could his pupils gain power in reading the languages, the headmaster retorted sharply: "I tell you, sir, that, in a private school, teaching for power is a luxury." So, in schools of any kind, we might fairly term that training a luxury which had culture for its sole aim, and paid no heed to a probable vocation. But we must and do refuse to allow that smallest of disjunctives, *or*, to tyrannize over us. We may not and do not set vocation and culture in such unqualified opposition. Perhaps those who appear to be opponents are really nearer together than they are willing to admit.

But our topic is not altogether clear. The *basis* of an *efficient education* is to be discussed. There are certainly three words here which require careful definition. "Basis" suggests something upon which a superstructure is to be placed. Some

latitude of interpretation is quite possible there. When, in educational matters, may the basis be said to be complete? Where does the work of creating a superstructure begin? Then "efficient" qualifies education in a most embarrassing way. It itself requires explanation. An education that is efficient for what? In enabling a man to earn his living; or to make money; or to gain a proper understanding of his relations to his fellows; or to appreciate the best that the world of thought in the past and present contains for each individual? And then we find ourselves confronted with a natural doubt, which prompts us to ask who is competent to decide this question with any authority. Men travel by different ways to achieve what they term success, and, having reached their goal, naturally laud that path by which they have climbed, to the exclusion of all other paths.

After all, we have here an old question in a new form, but coming to us under changed conditions. It is a direct descendant of that much-debated question of nearly a half-century ago, "Classical versus Utilitarian Studies;" it has, moreover, a close relationship to that staple subject for discussion of more recent years, "The Merits of the Elective System in Schools and Colleges."

As regards the former question, the classicists of the present day would hardly be disposed to assume an extreme position, such as was generally occupied by their confrères of forty years ago. The absurd position of those who claimed that the study of ancient languages and of mathematics furnished the one road to culture was too apparent to withstand the mere passing of time. The justice of the position of those who urged the claims of science, of history, and of modern languages to a share of a youth's attention could not be denied; and these, in increasing amounts, have gradually found their way into school programmes, so that the old time question has assumed a new guise, and masquerades under the title "culture or vocation."

In restating the old-time controversy in a new form, the advocates of utilitarian studies have driven their opponents back to their line of secondary defense, it is true, but they have brought them new allies. Surely *now*, not mathematics and

ancient languages only, but also history and modern languages, including English, will be found ranged on the same side. Indeed, it may hardly be doubted that the champions of the sciences, of the manual arts, and of well-nigh all subjects supposed to look more directly to a vocation in life, would challenge any definition of culture which did not concede some meager portion to their subjects. Though so small as perhaps to defy measuring, it might, and probably would, be claimed. The question today is not quite as stated—we may not fairly place culture and vocation so utterly in opposition, nor may we argue the question in its old-time form. The tendency of the times and the history of events have settled that. No system of education is worthy of the name which fails to include the culture-element; and, conversely, the culture-element should be found—necessarily in varying proportions—in every system of education, even in one which aims to train directly for a vocation.

But our topic, if not followed literally, is suggestive. It offers these as important questions: What sort of culture is most desirable? Is the same form desirable for all? What part may studies pursued solely for culture ends play in the education of the individual boy? These questions all admit of one answer—it depends upon the individual boy, upon his capacity, more particularly upon his opportunity, chiefly upon the length of his school-training.

The form of culture which is suited to the best development of one boy may not be as well adapted to his friend's needs. Furthermore, so far as the school is concerned, the amount of time which a boy can spend in his school course before devoting himself to earning his living must determine what part studies for culture merely may play in his educational training. The boy who must limit his school-training to the elementary school, in common with his more fortunate fellows, must learn to read, write, and spell, and to use figures quickly and accurately for simple arithmetical operations. These are simply tools for use throughout life, and, of course, cannot claim to be more. But surely the study of these in sufficient amount need not exhaust all a boy's school time up to the age when the law, in Massa-

chusetts at least, first permits a minor to set about earning his living. There should remain a number of years in which influences may be set at work for him which will be effective in adding largely to the sum-total of his happiness in after-life, and to his appreciation of his duties as a citizen. It is certainly desirable that his hand and eye be trained. Manual training, drawing, and perhaps constructive geometry should be provided for him. But for the boy thus placed I question somewhat the worth of a single year of an ancient or modern continental language. On the other hand, I should use every effort to develop in him a fondness for reading English, and ability to express himself clearly both by writing and by speaking; to give him an acquaintance with the history of America, together with some elementary knowledge of science and of civics. In all probability, the question of vocation for this boy is largely or wholly a matter of opportunity. He must do what he can find to do, what offers at the time. Any special training for a trade, if much time were devoted to it, would be of little value to him compared with what he would lose. In night schools or otherwise the youth who feels the stimulus will make his way. When he has left school behind and engaged in the work of getting a living, he will be happier personally, and socially more useful, if he has something to occupy his thoughts, something to afford him aspirations quite other than the narrow limits of a trade can offer. For example, it may so happen that he will have charge of some machine which does but a small part of some complete work—a most monotonous condition of affairs for anyone, unrelieved by any “joy of labor” which can be imagined. Minute subdivision of labor has been found by manufacturers to be most profitable, so that the workman of today cannot of himself make the whole of anything. Speaking of the manufacture of pins, which must be made from head to point by different artisans, Dr. Chapin remarks that “this may produce sharp pins, but it makes dull men, whose children will probably be duller still.” The more need, then, that the boy likely to be employed in such a way, with merely his prospective wages to compensate him for his drudgery, have some

interest aroused in him, if it be no more, during his abbreviated school course. Perhaps the easiest to arouse, and the one most permanent and profitable, would be a love for reading. He is likely to have some leisure in his life, which the saloon and its attendant joys may fill, if no other resources are within the man; while discontent with such uninteresting labor will make him and those like him the ready tools of the mischief-makers in the labor world. Compared with this man, the worker of a half-century ago was a happy and cultivated man. If he were a cobbler, he made the whole of a shoe, and could find satisfaction in his work, partly because of the variety in his employment, and partly because he had the power and knowledge to complete something. But the modern worker is hardly more than a part of a machine. If anywhere the elements of culture need to be implanted, it is in the men of this sort; and the chief opportunity lies in the last years of the elementary-school course.

Earlier I raised the question of competency. Who is competent to decide what constitutes the basis of an efficient education? We are told with truth that no teacher engaged in work upon one plane can properly meet the needs of his pupils, if he has not himself a "perspective" which includes the higher plane to which they are going, as well as the lower from which they come to him. But in our question a "perspective" is required of such vast range that the number qualified to make a decision must be small indeed. Not only a close acquaintance with elementary and secondary schools, with college, university, and professional schools, must the qualified judge possess, but he must have met and known all sorts and conditions of men, those who have started upon their life-work from all these points of vantage or disadvantage, have traced the cause of success or failure back to their training and to their studies, and discovered what part these, and what part heredity and opportunity, played in their success or failure. Hence one may but timidly venture an opinion chiefly with reference to one's own field, and leave the main question to the few who are properly qualified to pass upon it. This brings me to the secondary school, which seems now to

be the debatable ground, and represents the point of view from which I am personally compelled to consider the question.

In the elementary school, as I have said, the aim should be arouse some permanent interest in each pupil outside of the limited horizon of his probable occupation. If on the first day of a pupil's school life it could be known that he was destined to this or that occupation, it would, perhaps, be an easier task to determine what form of educational training was best suited to him in view of his coming vocation, but his course in general culture would probably suffer somewhat. This destined career, in many cases, we cannot know at the outset; but, with reasonable probability, we can tell early the approximate duration of a pupil's school life. If a pupil's chances of completing a secondary-school course are good, the elementary culture-training is relatively a matter of less importance for him. With the utmost economy of time and least waste in his preparation, he should enter the secondary school certainly one year, and perhaps two years, earlier than at present. The chief aim of the elementary school obviously should be to serve the interests of those who end their school days within its gates, to send them out as well equipped as possible for the work of life. At present it seems to me hampered in its chief work by being called upon to teach subjects which properly belong to the high school. On the other hand, pupils intending to go to college, or at least to complete the high-school course, are forced to use one or two years upon subjects which they may take up later to better advantage and with more economy of time. Relieved of these pupils, the elementary school would have more time to devote to those who deserve its best efforts.

The secondary school, by which I have in mind chiefly the high school, cannot, even as things are now, do well in four years the work allotted to it. "If the demands upon it are increased you will hardly be justified in expecting better results," someone will object. Furthermore, there comes an urgent demand that in this course the directly useful be preferred to that which may elevate and broaden, but can claim at most to serve only an indirectly useful purpose. One is tempted to ask the question, to what extent subjects taught in secondary

schools or colleges are directly useful to those who pursue them. Take manual training for instance, or mechanical drawing. These are certainly vocational in theory, and are credited with promoting accuracy and manual dexterity. No doubt, if a pupil ultimately becomes a blacksmith, a machinist, or a draughtsman, he has had vocational training and such culture as these arts will bestow. But, as usually interpreted in school curricula, manual training is not directly useful to large numbers of pupils, for the vocation or trade subsequently followed. For the larger number the training of the eye and the hand to a certain degree of accuracy is desired, not a knowledge of forging or wood-carving. But manual dexterity can be acquired in a variety of ways. Music is usually classified among the fine arts. Yet where will you find manual dexterity of a much more difficult order than skilful piano- or violin-playing exhibits? Quite aside from the moral or immoral qualities which they are supposed to develop, athletic sports and exercises afford capital training for the muscles of the body and for the eye. No one can deny, furthermore, that the clog-dancer has dexterity of his own sort. Yet these have but a narrow utility-value. The training in one does not secure power in another. Your piano-player, be he ever so skilful, cannot play the violin without more and different manual training, nor can the violin-player do better with the piano. Your clog-dancer may not swim well. Your boy trained in wood-carving needs to learn to work in iron. But all of these will have gained for themselves a certain facility or adaptability—almost a form of culture in itself—by virtue of which each is able to apply himself readily and successfully to other acts more or less nearly related. It may be said, too, that it is the object in view which makes a subject vocational. I doubt not that many of those present this morning have had a vocational use for those ultra-cultural subjects, the ancient classics. These, by themselves, offer but one special field of culture, and, though some of us think them indispensable to the curriculum which claims to be the best for general culture, they certainly need to be supplemented from several sides. For culture of one sort is of little avail outside of its related group

of subjects, and our horizon is bound to be limited in just such proportion as our culture fails to be many-sided.

For what purpose are we educated? Certainly the acquisition of money is not the sole end in view. If this were so, we should be forced to admit, either that teachers, as a class, are uneducated, or that they fail miserably of achieving the aim of their education. It may be that both assertions are true. Our topic implies that the object of our education is efficiency—the power to use our capacities with the minimum of effort and maximum of result. But we are discussing the basis only for this successful application of our powers. Can a man best fit himself for his life-work by narrowing his educational training to the shortest and most direct road, the vocational, or by making his basis as broad as opportunity allows, and then, with powers more fully developed, by attempting to master his special training for his vocation in shorter time? The headstrong eagerness of youth to get into work early, and the necessity, which is imposed upon many, of quickly becoming self-supporting, make for the quicker vocational route. But the attitude of some of our best professional schools of law and medicine, to say nothing of theology and schools of applied science, which require a long period of probationary study, the equivalent of that leading to an A.B. or B.S. degree, looks quite the other way, and would seem to show that the wider the range of study and the fuller the maturity of the student, the greater the success with which he applies himself to his professional study.

In a recent number of an educational magazine several engineers and physicians have given their testimony to the value for them of their study of Latin and Greek. They are apparently unanimous in their belief that these studies could not have been omitted from their training without serious loss. The points upon which they lay especial stress are, first, the difficulties of these languages which serve to sharpen the faculties, and, second, the aid they afford in gaining an exact meaning of scientific terms. A classical teacher gladly welcomes this favorable testimony from unexpected sources. But, in themselves, these reasons would appear scarcely sufficient to warrant the

learner in devoting years to the study of Latin and Greek. It would not be hard to prove that there are difficulties elsewhere which may serve as fairly good mental whetstones. Moreover, the argument itself is repellent. It reminds me of that remark of Mark Twain—or was it Josh Billings?—that “a certain amount of fleas is good for a dog. It keeps him from brooding on being a dog.” As for the matter of medical terms, I doubt not that the equivalent of a week’s hard study, with the help of an etymological dictionary, would give a sufficiently accurate knowledge of them. It seems to me to parallel quite well what Professor Münsterberg has said of Esperanto. About all that can be said for it is that it becomes quite simple and easy to learn, *if* you have already studied Greek, Latin, French, German, Spanish, and Italian, as well as English. It would hardly be worth while to study all of these simply as a means to finding Esperanto an easy task. But culture comes from a study of these languages, which I think no one has yet claimed for Esperanto, this machine-made invention of the polyglots. I do not think that the engineers or physicians referred to have justified their study of Latin and Greek, if they gained no more from it than the accurate comprehension of a small or large number of scientific terms.

But, after all, I have left the particular consideration of the secondary-school course for generalities. First of all I advocate the lengthening of its course to five years, and believe that the extra year may be gained by curtailing the elementary-school course for secondary or college pupils. Subjects properly belonging to the high school will yield better results if studied there, and the elementary school will be relieved by their withdrawal. As for the old-time controversy, nearly or quite all the studies then advocated now appear upon high-school programmes. It is no longer a question of introducing these: they are here. But the ever-increasing cost of modern living and the keenness of the competition for the prizes of wealth incline everyone to seize upon an advantage wherever he fancies it may be found. An early start upon studies which are useful and lead directly toward a vocation is a help which it requires the exercise of some

self-control to deny oneself. Self-preservation is an instinct, and gaining a livelihood a very essential feature of self-preservation.

Shall we admit that the point is well made? Surrendering completely, shall we give to those who advocate it full opportunity to train for vocations only, from the outset of the secondary-school course? But, even if we do this, a difficulty remains. It is agreed that we are unlike. Special aptitudes fit us for the proper performance of different tasks. It is most essential that each of us find that vocation which is best suited to his particular capacity. How and when may we discover this? Certainly there is danger that your youthful enthusiast may run off on vocational lines, which will not ultimately bring him to the goal of his hopes, and that he may find his mistake only when it is too late to rectify it. Probably most men could achieve an average sort of success in many occupations. The one needs to be searched for in which the greatest success and usefulness awaits them.

Who of us does not recall among the friends of his boyhood some promising genius in physics or even surgery, some embryo artist or architect, whom he now recognizes among the business men of the neighboring or some other city, whose career in life has proved most useful and successful, but to lie in quite a different line from that which his and our youthful imaginations pictured it? Perhaps I might be pardoned if I should cite a specific instance of a successful business man in our neighboring city, whom I knew years ago in college as an ardent frequenter of hospitals, an attendant upon accidents, a dissector of cats; one whose budding genius and prospective greatness so impressed his professors that gross weaknesses in literary lines were overlooked, that the college might not block the progress of a man whose eminence in surgical lines was already assured.

We often hear it said that the American boy of from fifteen to seventeen years of age is, in educational progress, far behind the German or French boy of the same age. This seems much like judging of a race by the relative position of the contestants at the end of the first lap rather than at the finish. Generally speaking, I doubt if Americans of thirty-five and upward are

esteemed inferior to Germans of the same age and class. Conditions differ, and what is best for German, French, or English needs may not be equally adapted to American. The pressure of living drives us to study more and more economy of time and effort. In Germany they make an early start along one line or another, and then give a most thorough and prolonged training in it. There is some danger, perhaps, that the wrong choice will be made, and that the boy who should be in the *Gymnasium* find himself in the *Realschule*. But we may be satisfied that he will be *well* trained in the one or the other. In America our aim is to give the boy more time and opportunity to discover himself. Inevitably there is some waste in the process, but in the end it is probably worth all it costs. To quote the mate in Kipling's story, we are agreed upon a few things which "every boy should larn." But after that, his freedom of choice of a definite line extending for a longer period places the American boy at eighteen some two or three years behind his German cousin. Still if he has thereby been able to find himself more surely, the greater confidence and maturity with which he devotes himself to vocational or professional work will enable him largely to make good the time-loss. Moreover he will be less likely to find that the vocation for which he has trained himself is not, after all, the one best suited to him, or the one for which circumstances or destiny intended him.

When a pupil enters the high school, the probable duration of the school-training again should exert an influence. If he is not going farther, the immediately useful in vocational lines may have relatively greater weight. If he is going to continue farther, the demands of the institution for which he is preparing himself must largely determine his school course. Now, it may be taken for granted that not much culture is derived from a subject in which a pupil has not progressed far enough to gain real power. Is the assertion rash that few of our high-school graduates secure enough culture from the so-called culture studies for this to be plainly evident? On the other hand, is the case much better in vocational lines? Are the graduates highly esteemed by those competent to pass upon their efficiency? We

often have the credit of doing our work badly, because of the quality of our product, and yet that product represents the expenditure of a vast deal of energy and effort on the part both of teachers and of pupils. We frequently hear the statement made that the large number of failures of pupils in culture studies is due to their lack of interest, and that these same pupils would display remarkable progress if trained on different lines, perhaps with a view to a vocation. I think this is open to question. "Interest," in the earlier years of school-training, is not an entirely trustworthy guide. Slow pupils are, as a rule, slow in all their studies. There is a form of interest which seeks merely amusement, entertainment, and does not beget energy in its possessor. There is also the interest which is due to a student's belief that a course will have a money-value for him, and so he chooses it in preference to another, which in itself is more attractive to him. Then there is the interest which comes from conscious power; when the student begins to feel a certain mastery due to attention and effort. This is the interest that is real and permanent; and if culture subjects are to evoke it at all, clearly they need to be taught with sufficient fulness; otherwise we cannot justify their presence in a secondary-school programme. They should occupy, then, as much of the pupil's attention as the time limits imposed upon his school education will permit. The truth or falsity of the criticism made upon classical studies, that the few who pursue them to the end of the secondary-school course really carry away but little of valuable result, has little bearing upon the question of the relative gain to the student from culture or vocational studies. For example, some of our best high schools are excellently equipped for giving instruction in mechanical drawing and manual training, and for three or four years the study of these is carried on. Yet I am told that the Massachusetts Institute of Technology will not give credit for manual training as an entrance subject, and that if boys, who have received the training in mechanical drawing in the high school, enter the course in this subject either at the Institute or in Harvard, they are excused from a portion only, usually a small portion, of the work of *one* year.

The inference might fairly be drawn that, even in the judgment of the higher institutions, so far as these subjects at least are concerned, the time of the high school student would be better employed in general-culture studies, as no power has been gained in his special vocational subject *commensurate* with the time and effort put forth—the same arraignment which culture-studies have to meet so often.

What is the reason for the assertion that the high school does its work poorly, in every line? The business men are dissatisfied, the college men make invidious comparisons with Germany, and secondary-school teachers sometimes feel more than they speak on the subject. Not long since, in the neighboring Latin school, a large number of people met to congratulate the principal upon the completion of fifty years of most successful service in that school. He commented upon the fact that fifty years ago the demands of Harvard for entrance were expressed in nineteen lines of the college catalogue, whereas today, they fill twenty pages. Yet at that time the school was in session a much longer portion of each year than it is today. In this form the statement is hardly fair to the college, but it does serve to show somewhat the changes which have come about. A dozen or more years ago the Committee of Ten and their assistants tried to improve matters for us, and certainly did so in many ways. But the result of their investigations showed that each teacher thought he could do more in his particular subject than he was doing. Still, as we wished to be conservative and to hold on firmly to that which was good, and at the same time to be progressive and secure all that was useful in the new order of things, very little consideration was paid to the student who was to be the happy beneficiary of all our thought for his welfare. We hardly remembered that he is of the same order of youth as his ancestor after all; that you cannot put much more than a quart into a quart bottle; and that, as the labeled quart sometimes hardly measures up to the pint standard, there is bound to be trouble. Just at present it is difficult to get any satisfactory training or culture in any line, because of the pressure in all lines.

A five-year course, then, is desirable for the high school. The standard and scope of work within the subjects should be improved, to the end that some real power or culture may be reasonably hoped for. We do not need to have the number of points required for college entrance increased, but rather to have greater values allowed for better work within the subjects. Take Latin, as an instance, a subject around which the preparation for the course in arts should be built. One must travel a long way before reaching the place where the greatest benefit of Latin training is received, though it certainly is waiting for the earnest student. Unfortunately most students drop the subject just as they approach that stage in their progress when they can appreciate and profit by its cultivating qualities. After the freshman year in college, Latin, if not prescribed, one might almost venture to call a vocational subject. It is certainly elected chiefly by those who have a direct use for it. The natural end, then, for the Latin study of most American youths would appear to be at the completion of the Livy and Horace of the freshman year. This point might well be reached by a still larger number than at present, while still students in the secondary-school period, and, at the same time, the good results be obtained which Latin ought to furnish. It seems to me quite possible that, with a reasonable programme in quantity, the study of Latin might be carried thus far, and we be brought a step nearer our envied German student. Moreover, if this were well done, it would go far toward refuting the contention that little power or culture is obtained by high-school graduates from that study to which they have devoted more time than to any other. The student who entered college would be free earlier to follow other lines or to continue Latin, as he chose. The student who did not go to college would have done as much work in the subject, and would carry away as much from it, as the great majority of college students. That this cannot be done without more time devoted to Latin I know full well. A possible, though from my standpoint a most unhappy, solution of the difficulty might be found in this. The present condition of the study of Greek in the high schools hardly justi-

fies its presence there. It is not worth while to enter upon the question of its value for culture or disciplinary purposes. No one can deplore more than myself, who have found my chief pleasure in teaching for the past twenty years in my Greek classics, that Greek seems to be dying gradually of inanition. Yet I cannot but feel the point well made that it is better to pursue the study of one language to the stage where some mastery over it as an instrument for culture is gained, than to travel half-way to this point in two. It seems a sacrilege to quote Homer in this connection, but I have said this "of my own free will, but with reluctant spirit." Greek as an important factor is fast disappearing from our high schools, however much we may regret the fact. It seems to me it would be better to make our training broader and deeper in one ancient and one modern language, rather than to gain a lesser degree of proficiency in two ancient and one modern, or one ancient and two modern. It would be a good thing from a cultural standpoint if a five-year programme of six periods weekly could be secured for Latin, and French or German also studied more intensively than now, while English—the writing of English, and the study of English literature—should be studied throughout the course in close connection with these languages and by itself.

Having gone so far away from my topic, perhaps you will pardon me if I go still farther away from it. One of the chief influences making for or against the effectiveness of a study in the schools lies in the constant public agitation of its value. No pupil is likely to pursue a study with any seriousness, the value of which he hears questioned at home, on the street, and, it may even be, within the school precincts. I once had an assistant in Latin—a splendid fellow—who took it into his honest head to say to his classes that he "hated Latin anyhow; supposed they did; had been conditioned upon it when he entered college." When he was shortly afterward promoted to university work, I felt that, however keen my regret at losing the presence of a genial and outspoken friend, I could easily spare him as an assistant in Latin. The pupil of the present suffers from this. Doubtless the future generation will profit by it all, when we have united upon a few educational lines which all may respect,

if they do not follow. It behooves us to agree speedily, unless we wish effective instruments to be made relatively less effective. This leads me still farther. Specialists among preparatory-school teachers are not an unmixed good. In fact, the situation is getting to be much as with the makers of pins in industrial labor. In order to get efficiency we specialize, but we are not making pins which are incapable of mental impressions, but teaching boys and girls who are. The teacher of one subject is apt to be regarded as the enemy of the teacher of another, and the point of view of the pupil who is studying both subjects is not so well appreciated as it might be. A secondary-school teacher might easily equip himself so as to teach both Latin and French, or Latin and German, and without slighting either, improve the work in both. Max Müller, speaking of teaching etymology by comparing words of three languages, asserts that "an hour a week so spent would save ten hours in teaching French and Latin." I advocate then a training in language in the secondary school which shall be complete enough to render it a cultural activity, based on not more than three languages, one of which for the course in arts must be Latin. Moreover, I think that a broader view for the teacher, a larger culture-return for the student, as well as a fairer consideration of the pupil's view-point, can be secured if each teacher busies himself with two subjects.

The danger there is in choosing a boy's vocation too early in his educational career, and in making his course bend at once and finally to this choice, can hardly be too strongly emphasized. There are many children in our high schools today who let immediate ease or pleasure decide for them the question of going to college. There are many, too, who change from one course to another with no definite purpose, influenced by momentary considerations. When the future vocation is surely known, it is perhaps desirable that its influence should shape the earlier course somewhat. But there is danger of error if selection is made before the powers have been sufficiently tried in many directions, or one's limitations reached in any.

But suppose we train at once for a vocation, and men become skilled in various arts, trades, and professions earlier than here-

tofore. Will the result always be satisfactory? A few weeks since I heard one of the foremost preachers of Greater Boston warning those who should have charge of filling his pulpit in the event of his leaving it, that it would require a man of vastly wider range of knowledge and attainments to fill it or any pulpit adequately today than had been true a quarter of a century ago. Even the vocation of a clergyman demands more than a strictly theological training based upon the so-called culture studies of a previous generation.

To draw a parallel from athletic sports, there also it is difficult to secure all-around development. The man or boy who is strong, or active, or swift, in one particular part or function of the body, has a tendency to cultivate that, to the neglect, loss, and sometimes to the positive injury of other parts or functions. The aim of proper physical training is to secure superior effectiveness in one part by adequate co-operation with other parts. The man who prepares for a boat-race does not give all his training-time to rowing. He runs, lifts weights, exercises with various machines, tries to develop a strong and well-balanced bodily organization, as well as to handle an oar deftly and effectively; or rather he does these things that he may handle an oar to the best advantage.

I believe that culture can be obtained from the proper study of many different subjects; that there is no real opposition between culture and vocation, but that the study of a vocation begun too early is likely to interfere with the gaining of culture, and result in loss to the individual; that the elementary school should do all it can to stimulate a fondness for something outside the vocation in those who receive least school training; that a greater progress and efficiency would be gained by limiting the number of subjects of the same order in secondary schools, and carrying them farther, with their interrelations more clearly marked; that the high-school course affords an opportunity for self-discovery which will enable the future college or university student to find his natural bent or aptitude with more confidence of right determination than can be made earlier; that it is everyone's duty to secure as broad culture as his opportunities will allow.

INDUSTRIAL EDUCATION¹

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First I must qualify to speak at all on this subject. I am put down on the programme as an editor, but a considerable part of my duties consists in managing certain departments of the Athenaeum Press. Printing is not so insignificant a matter as might be supposed; I am told the statistics of the industry in and around greater Boston show that one-tenth of the total industrial product of this section comes from the printing-press. This is one of the great centers of the printing industry in this country. There are—I was counting up casually the other day—I should think, about twelve skilled trades represented under one roof; that is to say, a very large proportion of the employees are skilled laborers; they have trades; they draw pretty good pay. This is an industry where the number of employees is comparatively small, but the character of the work is rather technical, and the workmen for the most part are skilled laborers—entirely different from another industry which you will perhaps hear more about later. It is a skilled as contrasted with an unskilled industry. I make this explanation because recent events have shown that it is very dangerous for a man to appear as an expert, and I want to qualify and show you just how much of an expert I claim to be. Beyond this practical experience in this kind of industry, I do not profess to be an expert at all; so in your mental or actual cross-examination please keep that in mind.

We talk of industrial education as though it were a new thing on the face of the earth. As a matter of fact, it is not. I suppose it is about the oldest thing there is. It is older than the sphinx, and more unchangeable. You can define education in almost as many ways as there are individuals and individual

¹ Stenographic report of an address at the dinner in connection with the Sixteenth Annual Meeting of the Harvard Teachers' Association, March 2, 1907.

points of view; but, from one point of view, a working definition of education for our purposes is this: Education is the transmission of the acquired capacity and knowledge of one generation to its successor. Now, obviously that has always been going on in some form or other. There undoubtedly was a stage when education consisted of nothing more than unconscious observation and imitation. That is, in the Stone Age, or wherever there first were a child and a parent, the child naturally watched the parent, did whatever the parent found occasion to do, and unconsciously, probably, imitated. That was the first stage in education, and education at that stage was almost entirely industrial.

The oldest historical accounts that we have, all the knowledge we have of existing tribes of savages, so far as I know, shows education advanced beyond this stage; that there was some conscious effort, very crude perhaps, to transmit knowledge, capacity, and ability from one generation to another. In the history of education we find that very early in the progress of the race an enormous amount of attention was given to intellectual and spiritual development. Almost all of our classical treatises on education are concerned with the development of the intellectual, moral, and physical powers of the individual. Very much later, I should say very recently, we have taken up somewhat with commercial education. For the last ten years a good deal of attention has been given in our country to the development of this field; the development has gone on rapidly, and on the whole successfully.

Thus we began with the flower—because the mental and spiritual life is the flower of human existence—and for centuries we devoted all of our attention to the flower, to increasing its beauty and its fragrance. Very recently, if I may use the comparison, we have taken up the subject of the stem—the commercial life; and we are just beginning to think a little about the root, which is the foundation and source of all this development—namely, industrial education. For we have in this place, I think, the best of authority for saying and believing, what I for one do believe, that the best foundation for any sort of living is the ability to make an honest living; and without that foundation

the development of the flower of civilization is impossible, just as without industry which yields products that people want to exchange one with the other there is absolutely no commerce. So we have developed our flower in our intellectual and moral education; we have gone on to do a good deal for commercial education; while up to about the present time industrial education has remained, where it started in its prehistoric, ichthyosauric, paleolithic period—unconscious imitation.

I must speak in generalities; I cannot go into the details of particular schools and attempts made, sporadically, to solve this problem. In fact, I can do no more than tell you in a general way what is going on in my shop. How does a boy learn the one or more of a dozen trades practiced there? How do we get recruits? Well, we can get them, of course, by hiring the best men away from somebody else; that is the easiest way for us to solve the problem. But there is a limit to that sort of thing; and, as a matter of fact, boys come into the composing-room or the electrotyping-room to sweep the floor, etc., and take the brunt of the wrath of the superintendent and foreman when things go wrong. We get a boy with the necessary endurance. He knocks around a spell, and by and by he gets a chance to do some little job. Possibly in the electrotyping-room there is a machine which there is no one to run—somebody is sick, perhaps, or away—and the boy is asked: "Can you do that?" If he can, he gets a chance to do it. Then he gets a chance to do something else; and so on. He must, of course, be alert and looking for those chances.

Now, that is an expensive process for the boy, because it takes him a long time to learn mighty little. He gets some instruction, because, when he does a thing wrong, it is pointed out to him—firmly, perhaps kindly. But his instruction is certainly irregular and sporadic, even though it is forceful. Nobody has time to tell him very much. When it comes to the finer processes, a good deal depends on whether he gets to "stand in" with some good workman. If there is some good-natured workman who takes a liking to the boy, when he is not very busy he will show him something. That is just human nature. Some people like boys,

and some do not. A great deal depends on whether the man does or does not, as to how much the boy learns. A good deal depends on the boy. But the boy is a long while getting a little; and it is an expensive process to the manufacturer, because a shop is not a school.

I read a story the other day which may not be true, but it ought to be. There was a man who had sixty hands on looms (if there is anybody here who knows about looms, I will take something else). He wanted to double his output because of an increased demand, and doubled the number of hands. He was very much surprised to find the output decreased 50 per cent., because the skilled hands spent so much time in showing the new hands. Something like that would be true, I am sure, if any attempt was made to add suddenly to the output of our press by taking on a number of unskilled workers.

The main business of a shop is to turn out a finished product of some kind, and all are busy; they have not time to bother with the boy; they have not time to instruct him; they ought to be doing something else. The whole atmosphere is entirely opposed to the atmosphere of instruction; and such instruction as is given is very expensive; for the instructor is not an instructor, but a skilled workman whose time is all needed for the job in hand.

Not only is this an expensive process, both to the boy and to the manufacturer, but it is also an unsatisfactory process, because it does not produce a thoroughly trained, skilled workman. In our work we need those, and we find it difficult to get them. There have been times in my brief experience when, if there had been a place where we could send a promising man to learn certain things thoroughly, we should have sent him there at our own expense and paid him a salary to go. The difficulty of finding people who really understand the job in hand is a growing one; it is becoming not less, but greater.

Now the question comes: What can industrial education do? Will it be a good thing? It has got to be a good thing for both the employer and the employed, if it is a good thing at all. I think the difficulties which I have already stated in the actual training taking place in our shop show clearly that, if something

can be done to relieve us of this casual sort of training, and to relieve the boy of the very casual experience he gets, it will be a benefit to both. The best asset, on the whole, that a manufacturer has is the intelligent skill of interested workmen. And the more intelligent skill a workman has the more interested will he be in his work. If an industrial training of some kind can give the workman a deeper and more intelligent knowledge of his craft, whatever it is, he is going to be that much more valuable to himself and to his employer and to the world.

Every man, it seems to me, is bound to take an interest in his job, whatever it is. Not every man does, but most men do. The workingman as a class does not belong to the dumb-driven-cattle type at all, if he can help it. He does take an interest in his job; and I have been surprised again and again to see what a keen interest he takes in doing work well. They tell the story of two street-sweepers in New York City who were discussing their relative talents and abilities. Finally one of them said; "Now see here, Billy! I'll admit that when it comes to an ordinary plain job of sweeping, you can do it all right, but when it comes to a real artistic job, like that around an electric lamp post, you ain't in it with me, and you know it." If a man can take pride in sweeping a street well, he can take pride in almost anything. If a man is deprived of this joy and interest in his work, he is deprived, it seems to me, of one of the most valuable rights and privileges that belong or should belong to everyone. A man must spend most of his time—most of us have to—working; there is no doubt about that, whether we like it or not; and if we do not get any fun out of our work, through knowledge and interest and pride in it, we certainly lose a great deal which, if it can be preserved, ought to be preserved.

How and when and where is industrial education to be put into effect? I knew you would want me to tell you all about that. But I am very sorry to say that my time run out when I got that far in the preparation of this talk, and I shall have to leave the solution of that problem in the hands of the Industrial Commission. However, there are one or two suggestions I might make. Some shops have schools of their own. Is that a feasible plan?

Undoubtedly it is a plan that has produced good results in some instances. But it seems to me that that solution is entirely negligible, so far as any public consideration of the question is concerned. The possibility of the shops maintaining their own schools is altogether to be disregarded, for this reason: it is feasible only where large numbers are employed—very large numbers; and while a considerable portion of the industries of the country are represented by establishments that employ large numbers, still by far the greatest part of the work is done in relatively small shops, where the maintenance of a separate school would be practically impossible on account of the expense. Another objection is this, that in a shop like ours, where at least twelve different trades are represented, there are only a few men needed or to be trained at a time in each of those trades. You would have to have a training-school for twelve trades—some of the time nobody to train in some of them; and it would be a ruinously expensive thing—it could not be considered.

I should like to call your attention to the fact, probably well known to you, that in one branch of industrial education the public has already done a great deal; and that is in the fundamental industry of all—agriculture. Perhaps you know that agriculture is now a required subject in some eight or nine states—just as much required in the schools as are arithmetic and geography and reading and writing. The teachers have to pass an examination in it. This is very largely the case in the South. I think practically all the southern states have agriculture as a required subject. That is the great industry down there; and out in the western states agriculture is also coming to be required in the schools. The movement is gaining headway there in a way that is surprising to one who has not followed the matter up closely. They are going to have agricultural high schools all through that great Mississippi Valley; they are going to have agricultural high schools just as surely as they have great agricultural colleges in every state now. Agriculture is not our great industry in this part of the country, and obviously never will be. But we have great industries here, and we must, it seems to me, do for our industrial foundation what

the agricultural states are doing for the industry that lies at the basis of their prosperity.

It is a very complicated and difficult question, just what to do, and I will only say this, that for my part I am very glad to leave the question at this point in the hands of the commission, simply suggesting that, whatever is done, they must keep the work practical, close to the shop, to be of real value; and that we on our part must give them loyal, enthusiastic support in the great work they have undertaken. And I for one am willing to give them patient support. We have waited, according to our theology and our science, either four thousand or forty thousand or four million years, from the dawn of human life to the present time, for any particular interest in industrial education to show itself; and I do not think we ought to abuse the commission if they have not given us a fully perfected, absolutely complete plan by the time the next legislative session opens.

INDUSTRIAL EDUCATION¹

HENRY J. SKEFFINGTON

It is an honor and, I assure you, a very great pleasure to have been called by Professor Hanus to be with you and to fill the gap left by my friend Golden. I wish, however, that I could say, with Mr. Thurber: "At this point I desire to unload on the commission." I shall not go into more than a very brief discussion, giving you a peep into the industrial life as I see it. Mr. Golden, general president of the Textile Workers' Union, knows my sentiments on this subject, and I know his—we agree thoroughly. Mr. Golden, however, has had much more experience with industrial schools than I have. He knows of them in England, where he was born. He had some experience there as a pupil in those schools. He knows, too, of the textile schools here in our own state; and he could tell you of the efforts of the textile unions themselves to start and maintain schools to teach their own members. There is such a school in the city of Fall River; the loom fixers of that city have maintained it for a long time, to teach their members how to take care of looms. There was one in Lawrence, maintained by the Loom Fixers' Union of that city, but they, unfortunately, were compelled to discontinue it on account of lack of funds. The state, as you know, maintains textile schools together with the cities of Lowell, Fall River, and New Bedford. I have in mind, too, how, when a Mergenthaler machine was introduced into the printers' trade, the typographical union in my home city of Philadelphia procured one of the machines, set it up, and invited the members to come in and learn

¹ Read at the Sixteenth Annual Meeting of the Harvard Teachers' Association, March 2, 1907. Mr. Skeffington was formerly general secretary of the Boot and Shoe Workers' International Union, and is now connected with the W. L. Douglas Shoe Company. He took the place on the programme of Mr. John Golden, president of the United Textile Workers of America, Fall River, speaking on industrial education from the point of view of the union and the workingman.

how to run it. They solved the machine question in that trade, and did it intelligently and well. The result is that they have established an eight-hour work-day, and their wages have risen at the same time. Other trades, as you know, have not adjusted themselves to the question of machinery as yet.

Mr. Golden would also have told you of the experiences he had with the labor unions of this commonwealth as secretary of the Industrial Commission, appointed by Governor Douglas, which preceded the present commission. They had a number of hearings throughout the state, and the leaders of the trade-union movement turned out in force in a number of places to appear in favor of, or opposed to, the project, as it appeared to them. I am sorry to say that a large number of the labor leaders of our commonwealth are still opposed to this idea. They are not opposing it so strenuously now as they were some months ago. They had an idea that this was a scheme of the employers to establish trade schools; and the very name "trade school" is obnoxious—very, very obnoxious—to a trade-unionist, because, when in New York, some years ago, Colonel Auchmutty started a trade school to teach boys in the building trades, and sought to put them out as full-fledged workmen, there was a good deal of commotion. Strikes and other troubles finally led the colonel, or whoever else had charge of the place, to change its policy; but the phrase "trade school" has had a sinister significance for the leader of the trade-union ever since. When you talk of industrial education he at once jumps to the conclusion that it is a device of the employer to turn out these immigrants, who are coming in in such large numbers, as half-baked mechanics, with only sufficient knowledge to take the place of the other workmen who are high-priced and likely to go out on strike some time. That is the conception, or was, of this present movement. It is not, however, I am pleased to say, the conception of all of the trade-union leaders of this commonwealth, or of the trade-unionists themselves. We who favor this movement see something different, we see something better; and we think that the state ought to provide it for us.

When Mr. Thurber was speaking of the boy who comes into

their printing-office, and works his way up in spite of everybody there, he was picturing my own experience when I went into the Sherman Print in Philadelphia as a boy. I, too, was a printers' devil; but I was not one of those that could stand it, as he pictured. What I thought was a better opportunity opened to me in a shoe factory, and I went there. Now, I think the best service I can do for the idea of industrial education by the state would be to picture to you some of my own experiences in learning my trade. I came out of school, as so many do, at a very early age, and directly to the first job I could get. We were poor; I was a child of immigrant parents; we had to work. They could not keep us at school beyond a certain stage, and we had to turn to work, especially during the vacation period; and nine times out of ten, if we happened to hang on to something in the vacation period, the chances were that our parents would say: "You had better stay there and learn your trade." They could not send us to high school and college; so the next best thing was to have us learn a trade; and we had it dinged into us morning, noon, and night, in season and out of season. They saw that the men with trades were better off than the men unskilled; so learn a trade. How? "Well, learn it; that is all." My mother and my father both went around to different factories and shops and places, and my mother actually had an idea that I would make a pretty good horse-shoer. Thank God! She failed in that. I was not apprenticed to a horse-shoer though I barely escaped it. So, when they failed to get me apprenticed to somebody, in some trade, they left me to my own resources, and I went into a shoe factory. Then my troubles in learning a trade really began. Mr. Thurber says that the foreman in his shop comes along and says to the new boy: "Can you do that?" "Yes." "Well, go ahead." That was my trouble, and that is the trouble with nearly all the boys and girls compelled to go from the lower-grade schools into the shops and factories today. The trade of shoemaking is divided up into seventy-nine or eighty parts. A shoe passes through that many processes before it is complete and sent out upon the market. Imagine yourself the eightieth part of a shoemaker for a number of years at a time.

You get a little old, your eyesight begins to fail, your fingers become a little stiff, and your back a little bent. Then contemplate yourself as the outsider, because they want the young men, not so much skilled as dextrous; and they want faster men. That is the usual fate now in large factories.

But to get back to the boy and the girl. The trouble with me was this continual pounding at home: "Learn a trade, learn a trade." And of course I tried to learn a trade, and pick up as much as I could. The foreman got me into a position where perhaps I was turning out two dollars worth of work for fifty cents; and that settled it. That was my misfortune; I was kept there. When I wanted to take the next place above: "No, no; you stay right where you are." Why, it was profitable to him. Unlike the boy in Mr. Thurber's place—it is unprofitable there to the employer—in my trade it was highly profitable to the employer to keep me there earning big profit for him. He did not care anything about me. I was compelled, of course, to learn my trade, and I learned it by leaving him nine times in seven years. When I thought I was competent to run this, that, or the other machine, I would go to him and ask him for the wages and the answer invariably was: "Ah, oh, you want to get ahead too fast; oh, no, I won't stand for it." The next morning I had a job in some other factory, where I had the work and wages desired. In a few weeks, when he thought I was thoroughly competent, he would meet me: "What are you doing?" "Working for so and so." "How much are you getting?" "So much." "You lie; you are not getting it. You come back to the factory, and I will give that much if you won't tell anybody." "Well, I don't want to go back." "You come back, or I will go and see your father." That usually settled it. My parents, because they had seen the foreman and he had said, "Yes, I will teach him a trade," fondly hoped I would learn a trade under him. They could see nothing but his promise to teach me a trade; and I had trouble with him—plenty; and I had trouble at home—lots.

I have observed in all of my experience that that is a profitable process; at least in the shoe trade; it is profitable to the employer only. It is at that point that I want to see the state

of Massachusetts, this old commonwealth, step in and take hold of the boy and the girl. With all of this immigration coming in to us, what are they to do—what are their children to do when, at the end of the common-school term, they present themselves at the factories? They then become the victims of the employers. You will say: "Well, all employers are not engaged in the business of grinding all that they can out of these boys and girls." No, I am proud to say that all employers are not; but there is a sufficient number of them to make us sit up and take notice. Again, nine times out of ten it is not the employer who does the grinding; it is his understrapper. The little foreman, who wants to make a good showing in his department, wants to go down to the employer and say: "See what I have saved you; why can't you give me a moiety of it?" This is the system that I complain of. If the employers knew more about the workings of their own factories, there would not be so much trouble, so many strikes. The workmen would get along better. But you know, of course, in this present stage of our civilization we are all clutching each other's throats and squeezing out what we can of the other fellow for ourselves. So the foreman in the factory is human, the same as you and I, and he wants to grind out whatever there is for himself. But he generally has to grind out a good big lump for the employer before he gets a little for himself. Thus the conditions are made; and whoever comes next from the schools must accept those standards, those wages, those conditions.

Now, we felt it incumbent upon us to pass a compulsory education law in Massachusetts, and we employ officers to enforce that law, and we hale the parents into court and punish them if they do not send their children to school; and if they send them into the factories, and lie about their ages, we will punish them too. Why? Somebody has said: "Make the means of your education as free as water, and you will make a republic that will endure forever." That being true, we want the children educated, and the citizens of this commonwealth pour out money for it today with unstinted hand. In the town of Revere I never have seen the day when they would not vote every dollar required

by the school committee to enlarge our schools and give them the very best that could be had with money. So that, if it is necessary for the perpetuation of our republic that education be as free as water, my friends, will you not agree with me that with it there ought to go some sort of industrial training to make that education of real value in establishing the home?

And the home—don't you notice that our old-fashioned homes are going out of existence? Don't you notice that we are being crowded into tenement houses? Don't you notice that, where one family lived, two or three are being crowded in at the present time? We do not want to see that; you do not want to see the American workman forced to live in hovels not much better than dog kennels, as I have seen them—not here, in our New England states, but in Pennsylvania and Ohio, in the coal-mining districts. I assure you you would not exist in the hovels those men are compelled to live in; and they consider themselves fortunate, too.

Now, if we are to have education as free as water, so as to train the mind for good citizenship, why should not the state go into the business of giving industrial education, so that when the boys and girls leave school, if perforce they are compelled, at the end of the grammar-school term, there may be an industrial training-school where we can at least assist them in the learning of the art of their trade or calling, whatever it might be. If we cannot do any more than assist them in the choice of the work they are best fitted to do, with ample opportunity to acquire a complete and masterful knowledge of their trade or calling through night courses; if we make them good mechanics, we make them good citizens and good home-makers, good fathers and mothers; and, of course, we shall thereby raise the general tone of our citizenship here in Massachusetts. That, it seems to me, is something that the state ought to be glad to take hold of; because it is a sound business proposition, capable of magnificent results. And yet there are those who are opposed to it, even among those who are to be benefited most of all—the workmen themselves.

The manufacturer has no time to teach—that is true. In no

part of the establishment is there time to do anything except keep the machinery going. Very well; what are we to do? Where else are we to get the knowledge and the information that will make of us good mechanics? We cannot all be teachers; we cannot all be Harvard professors and principals of high schools; some of us have to work. (Please consider that a little joke; I refer, of course, to manual labor.) That being the case, help us to do as good work, as productive work, as possible. The state can well afford to take the boys and girls leaving school—for this reason: They leave school now at an average of about fourteen years, or at the end of the grammar-school course. My impression is that, if there were industrial schools established in these centers, the parents would see the advantage of keeping the boys or girls at least two years at the high school, because in the industrial school they could get additional knowledge and information and real training, so that, when they presented themselves to employers, they would not be helpless, compelled to accept the conditions that exist. They are now so compelled, because when they come in they are to some extent a nuisance to the employer. Well, suppose a boy or girl came in at sixteen, having had two years of industrial schooling. Do you suppose the employer would attempt to take advantage of that boy or girl? By no means; they are valuable; he knows where to put them; he puts them where they can do the most good, not only for themselves, but for him. They are no longer in the way; they have the knowledge and ability worth something to him; and, instead of starting at 50 cents a day, they are more likely to start at \$1.50 a day. Then the opportunity to continue their course at night enables them to become journeymen, able at twenty-one to earn a good living. We shall not see so many young men, or middle-aged men, unmarried.

Given these opportunities by the state, and having acquired the knowledge and ability, they will not be huddled together in the crowded quarters of the large industrial centers, but will push into the sparsely settled suburbs and will establish homes with up-to-date improvements. There will be fewer of the married women working in the mills and factories for "pin-money" (?)

The husband and father, with his increased practical education, will command a higher standard of wages because of his increased earning capacity, and the compulsion upon the part of the wife and tender children to go to work to add a little to the family pot will have ceased.

Employers seldom refuse to pay the very highest wages to those whose skill and effort entitle them to it. It is a common belief that strikes and labor troubles are caused mainly by inferior workmen; and I must confess there is ground for that belief.

Those acquainted with the social side of our modern industrialism will readily comprehend the tremendous influence for good this scheme will exert in the uplift of the morals of the working people and of the community at large. That side of the question can well be left to you teachers, who must often feel the pangs of bitter disappointment at the failures of bright pupils who have been torn from you and rudely thrust into the conflict to battle against the stern necessities of our modern industrial life.

I have said that many unions and union leaders are opposed to the scheme, and I repeat: it is because they do not understand it. But where it has been brought home to them and thoroughly thrashed out, their opposition disappeared. I argued it in a meeting of the Central Labor Union of Lawrence, and the scheme was unanimously approved. I accepted a challenge to debate it with the president of the Boston C. L. U. before the Cambridge C. L. U. and my opponent later called upon me and announced his conversion, while those who listened gave their approval, though no vote was taken.

Thus, when the union worker finds this is not a sinister scheme of the employer, but an effort of those who love their fellow-men and are trying to do something more for them than is being done today; a plan of those who desire to raise the standard of living of our American workmen, and to place in their hands the means of winning social preferment—for "moral worth, not wealth, should be the true standard of individual and national greatness," as well as material advancement; in other words, a project to advance and promote the best interests of the

workers, and to provide an insurmountable obstacle to the lower standards of living being introduced through the immense immigration to our shores—he will accept it and indorse it.

This is what this project means to me as a union man; and I know I voice the sentiments of a very large number of shoe-workers, as well as the textile workers whom Mr. Golden represents, when I express the hope that the work of the commission may meet with every success.

Members of the Harvard Teachers' Association, this is a work that must commend itself to you and to every honest man, and I feel certain we can go hand in hand together to work it out for the good of our commonwealth and all its people.

INDUSTRIAL EDUCATION¹

CHARLES W. HUBBARD

Ludlow Manufacturing Associates, Boston

I speak on "Industrial Education" with much diffidence, as I have never given the subject any systematic study, and what I have to say today is based mainly on observations of factory life in one village with which I have been intimately associated for thirty years. But I think I may fairly assume that the conditions are substantially the same as those existing in other manufacturing towns.

I have felt the need of industrial education myself, and I have seen the need of it in others. As a boy I had my own carpenter shop, including a cheap foot-lathe to which I added all the attachments I could invent. When this did not satisfy me, I used to walk two miles out to Roxbury to work in the repair-shops of the cordage-works. These shops were in a dark, damp basement with a dirt floor, and were supplied with prehistoric tools. At that time I think my idea of heaven would have been such a shop as now exists in all scientific and technical schools. But as that heaven did not then exist, I accepted the academic course and became a poor classical scholar, when I might have made a good mechanic. It was just at that time that original experimental work was being introduced, and Professor Trowbridge set me to make some experiments in magnetism for which I was to make my own apparatus. The Lawrence Scientific School then boasted an old foot-power engine lathe, one chuck, and a few dull tools, but no grindstone. This represented the industrial education offered to a Harvard student thirty years ago.

What were the educational facilities in the factories at this time? My associations have been mainly with Scotch-trained overseers, and our general superintendent tells me that, when he

¹ Address read before a meeting of the Harvard Teachers' Association, March 2, 1907.

was young, a boy's only chance was to pick up what knowledge he could in his routine work, and that this was made even more difficult as the overseers, having worked hard for their own knowledge, guarded it jealously. When I was working in the mills, I remember how amused I was when an old English overseer, as a great favor, showed me how to figure drafts by simple proportion.

In all discussions of industrial training I have heard very little said about its application to boys or girls in our textile mills. And yet, in order to take in all industries, it must include the factory operative, the unskilled as well as the skilled; and it is on industrial training in connection with the factory system that I wish to speak.

In the factory system we have a small number of more or less skilled workers, and a large number of unskilled; and we must have them, or the industry will cease to exist. A single community may be made up of highly skilled and highly paid workers, but the country as a whole has a large proportion of unskilled work which must be done, and which should be done by the least intelligent. It is therefore not a question of converting all workers into skilled workers, but of selecting those who have the greatest natural ability; to educate these properly to fill the places to which they have the ability to rise; and to give to the rest such education as will fit them to fulfil such civic and family duties as may fall to their lot. Moreover, I claim that these latter should be taught how to find enjoyment in life, without recourse to those forms of pleasure which degrade. No civic life can be healthy where the people cannot secure a reasonable amount of rational and innocent enjoyment; for, if they do not get it in its innocent forms, they will get it in others, to their own injury and with cost to the community.

Closely associated with the question of industrial education is the question of the proper age at which children may be put to work. We recall with horror the time when children of nine or ten were worked twelve hours a day. It is not many years since Massachusetts worked children of twelve eleven hours a day, and it is still done in the South. Massachusetts now allows

children of fourteen to be worked fifty-eight hours a week; but at our own works we have cut this down to fifty-five, as we believe these hours long enough for a mill employing women and children. I do not claim that fifty-five hours a week is the limit at which legislation should stop; but I do feel that some of us in Massachusetts are a little hysterical on this subject, and that we cannot go too far in advance of legislation in other states. The factory operative all over the country is being recruited from the freshly arrived immigrants; and experience shows that immigrant families will go to those states which permit the largest number of the family to work. This tendency of parents to work their children to the last limit of the law is illustrated by the statement of a southern manufacturer, who told me of a small girl whom he had not the heart to work, but kept on his pay-roll, as otherwise the father would have taken the whole family to another mill.

Nevertheless, I believe that one of the most important lessons to learn is to do early in life that which we have to do throughout life. The professional man, the teacher, the scientist, the man who works with his brain, must learn as a child to apply his mind. Likewise, a boy or girl who is to be a manual worker should early learn the habit of work.

As far as I know, there has never been any scientific attempt to determine the age at which children can work without injury to their future health and development. Philanthropists and the intelligent workmen, on the one hand, have been for raising the school age; manufacturers, on the other, as a rule have opposed it. I should like to see the United States Children's Bureau appoint the strongest commission that could be named; have this commission make an exhaustive investigation and study of this subject; and then have the friends of the children use this report as a basis for their work in the various state legislatures, or possibly have its findings incorporated into the proposed federal corporation law, so that all corporations wishing to do an interstate business, in any specified industry, would have to conform to one rule as regards child labor—a rule based on a scientific investigation.

There are certain industrial operations which a child can learn better than a grown person; for example, spinning, in which children of fourteen or fifteen can acquire the manual dexterity more easily than those of a more advanced age; and, having acquired this dexterity, they command higher wages than those who can do only unskilled work. On the other hand, there are certain important subjects of education—cooking, household economics, the care of children and of the sick—which can best be taught at an age later than that at which children can properly be put to work. It therefore follows that there is a time when work and schooling should be combined.

As it is at present, almost all our factory children enter the mills at fourteen, with the most meager education. The child receives no further education of any kind; nor has he reached the age when he can continue his education without outside help. And yet he is just at the age when character and habits are becoming settled. As a result of this complete cessation of education, combined with the deadening effects of monotonous work, the majority of these boys and girls have their lives stunted, and many with natural ability have their whole lives ruined at this period. Nor is this all. We see the evil effects also in the next generation, in ill-fed and ill-cared-for children. I think our system of education is at fault in this, that we pay too much attention to the advanced education of a few children simply because their parents can afford to keep them at school, and too little to the education of the large majority who are in sore need of it, both for their own good and for that of the community. It is not right that all schooling should be denied children, simply because they have been forced to become bread-winners; and I believe these children would benefit more by half-time schooling between fourteen and sixteen than by having the school age raised to fifteen years.

In planning for any advance in our social or industrial conditions—and in the broader sense the former include the latter—I hold that it is most important that we have in mind an ideal, a final goal for which we are striving. We may not see it clearly; we may not know how far off it is, or how many obsta-

cles are to be overcome; we may realize that, as with certain mathematical points, we may be always approaching, but can never reach it. Moreover, if our advance is to be successful and lasting, we must have it conform, not only to the spirit of the age in which we live, but also to the spirit of the ages. The spirit of our age is that of industrial progress and efficiency. By the spirit of the ages I mean the spirit of truth, justice, honesty, generosity, and self-denial; the spirit which in all time has actuated and maintained the world's progress toward civilization and righteousness.

I may seem to be wandering from the topic under consideration; but industrial education has so intensely practical a side that I fear we may forget the ideal and ethical when we discuss it, and the lessons of history tell us only too plainly that our failure to reach our goal will be due, not to industrial inefficiency, but to the want of those fundamental virtues which we all profess to have, but which we fail to practice.

When Professor Hanus asked me to speak at this dinner, I tried to project my ideas into the future; I tried to conceive an ideal, a goal, toward which our industrial education of factory children should lead. I had before me a large manufacturing village: all the people at work in one large industry; a perfect example of the product of the present industrial age—the large corporation, the managing heads, the department heads, the room foremen, and the wage-earners. I asked myself how many of those men and women, even the men in charge of whole rooms of machinery, had any idea of the historical development of the industry. How many knew anything about the various factors, unseen by them, which enter into the total of the great industry of which they are a part? What did they know? Practically nothing! And then, bearing in mind the fault found with the present industrial system, I asked: How is the system to be changed so long as this state of things last? What is the ideal system, and what steps must be taken to develop it? If the present so-called factory system is wrong, having grown up as the result of abnormally rapid and revolutionary changes in the world's industrial development, what ideal system must we set up as the goal for which we are to strive?

The ideal, as I conceive it, is an industrial community where one or more industries shall be owned and carried on by the people of the community themselves; where the industries shall be a part of the community life. The individual shall not only feel himself part of the industrial life, but shall feel that any position in the industry is open to him, provided he can prove his ability to fill it. This feeling existed in the armies of the first Napoleon and in part accounts for his success.

The school should give instruction in all branches of knowledge needed to carry on the business, or should arrange that the higher, specialized branches should be taught in special schools elsewhere. But the scholars should be carried only as far as they are able properly to apply the instruction given; and even after reaching this point selection should be made of those most capable. There should be no waste of educational advantages. It should be a survival of the fittest, where all have an equal chance; and the spirit of justice should be so fully developed that those who are left behind should feel that it was on account of their want of character or ability, and that their failure was not due to favoritism shown to others. So much for the dim future; now let me outline the plans for an industrial school which we have decided to start at our own works, and let us see how it fits in with this ideal.

First, in explanation, let me say that our industry is the carding and spinning of hemp and jute—an industry not common in this country, and less attractive than work in cotton and wool. There are no textile schools in America that give instruction in this industry, and most of the superintendents and overseers come from Scottish mills. Of our fifty-four overseers and second-hands, not one was educated in our village schools, although the industry has been established in the town for thirty-nine years and is the only manufacturing industry there. During the last twenty years the taxed valuation of the town has grown from \$808,000 to \$3,027,000. The schools have grown from a one-room ungraded school to three schoolhouses with seating capacity for 890 children. And yet at the present time no boy who received his education in these schools holds any position of responsibility in the textile departments; not one boy

in twenty graduates from the high school, and the boy who does is educated away from the mill. The boy who enters the mill at fourteen has his development arrested by continuous work; and even if he had the energy and ambition to continue his studies, the town has never provided a night school. As for the girls, three-fourths of them enter the mill at fourteen and stay there until they marry. They have no education in cooking, sewing, or any of the domestic duties which they will have to assume later.

I do not say this in any disrespect to the village schools. They are, I take it, a fair example of our New England factory-town schools, and I believe above the average. But this want of correlation between the schools and the needs of the industrial and social conditions of the town set me thinking. I asked myself: Are we always to be dependent upon foreigners for our managing men? Why is it that no boy, educated in the village school, has ever risen in the mill? The answer seemed to me to be that the position of an overseer in a jute- and hemp-mill did not appear as attractive as the many openings in the mechanical trades, and the way of arriving at it through the drudgery of the mill less so. As I have already said, the boys who have gone through the high school never enter the mill, and the boys who enter the mill at fourteen have their development arrested.

Our idea of an industrial school, to meet these conditions, is to select the brightest boys of fourteen as they leave the school. Through half a day's work in the mill we propose to develop in them habits of industry, and a recognition of the dignity of every form of useful labor, no matter how unattractive its conditions may be; the other half of the day we plan to instruct them in those studies which will aid them in their mill-work, will broaden their ideas of life, and will fit them to be leaders in the social and educational life of the village. At first their work in the mill will be simply as machine-tenders. But they will be moved from machine to machine in order to give them as much variety as possible. Later they will study the mechanism of the machinery, work in the repair-shops, learn to grade and handle fiber, make experimental tests in the running of machinery, and

receive instructions in the various details of mill management. They will have systematic gymnastic training, will be taught swimming and dancing, and will be encouraged to take a leading part in the athletic interests of the town. We want them to be of value, not only to the mill, but also to the community. What the results of this proposed school will be remains to be seen.

About a year ago we needed two superintendents. We should have much preferred to have advanced two of our overseers, but none of them seemed to have all the necessary qualifications, so we went abroad for our men. I asked our general superintendent this question: "Had our overseers, as boys, had the education our school proposes to give, how many of them could have been advanced to superintendents?" He replied that he thought a third. I think our proposed school will appeal to you all as a practical question of education; and it also seems to me to be a step toward the ideal industrial community which I have outlined.

Assume that the school is a success, and that every bright boy with abilities and character has a chance to develop himself; that many of these boys become second-hands, overseers, and superintendents, or fill other responsible positions. Suppose these men are encouraged to invest their savings in the industry, instead of in the savings bank. Suppose the town had the legal right to, and did, invest in this its great industry; that its schools adjusted their earlier studies to prepare for the industrial school, which later becomes a part of the village system. How far are we from the ideal industrial community which, by public or private ownership, owns its own industries and educates its citizens properly to conduct them? On the other hand, when we consider that our whole industrial system, as regards machinery, methods, and mill hands, is in a condition of flux and change, we are forced to the conclusion that our industrial undertakings have not reached that stability which would warrant a community interest such as I have suggested. But I look for the time when the chances for starting inventions or revolutionary methods will have passed, and when success will depend mainly on a

thorough knowledge of the industry as then practiced, combined with the intelligent and conscientious work of all employed. By that time, instead of having to receive and assimilate thousands of foreigners of different nationalities and strangers to our country and institutions, we shall have a homogeneous population, which our industrial schools should for generations have trained to be effective workers, not only in the mills, but in their homes.

Now, allow some generations of thrifty workers little by little to invest in an industry in which they and their fathers have worked—an industry the general outline of which they have been taught to understand, and in which they have confidence. Is it not possible to conceive that under favorable circumstances such an imaginary community might in time become a reality?

BOOK REVIEWS

Literature and Life in the School. By J. ROSE COLBY. Boston: Houghton, Mifflin & Co., 1906. Pp. 229. \$1.25.

This is a little volume of essays on literature in the schools, consisting of these five chapters: "The True Function of Literature;" "Literature and the First Four Years of School Life;" "Literature and the Second Four Years of School Life;" "Method of Handling Literature in the School;" "Literature and Life after the Elementary Years;" and an appended list of books.

The title of the book may not quite fairly be taken as indicating its atmosphere and method, for it is not entirely mystic nor merely discursive. Neither should the opening chapter, which deals with the educational and artistic problems involved in a partial and personal way, be taken as measuring the usefulness of the book. For when we do get into the central chapters, we find more of the judgments sound, and the actual practical advice good. It is clearly to be seen that the author has imbibed much of the wisdom of modern educational philosophy, has seen the readjustments of educational material and the shifting of educational emphases. She has a vision of the fact that we must make provision for the childhood of children. But one cannot feel sure that she has recently taught the actual children, singly or in classes. Both the detailed advice and the generalizations supporting them have an atmosphere of a *priori* theory, so subtly different from that of a *posteriori* practice. The book, title and all, is colored and injured by the doctrine that literature is chiefly useful for producing and deepening what are, after all, extra-literary results—patriotism, for example, or love of nature. The style helps to confuse one as to the usefulness of the book. It is a literary style, whereas it ought to be a scientific style. This gives it a vague and indirect air, where one has a right to expect directness and authority. The book is not one that would be read by people who read general literary essays; it makes its only appeal to school teachers; and when teachers are suffering for teaching as full and as exact as possible, concerning the art of literature, and those elements and specimens of it that they will find applicable and effective, together with somewhat specific directions for using them, it is trying to have to extricate these things, if they are to be had at all, from a chapter of indirect suggestions and "literary" reflections. It is this tendency to write a literary book of reflections about literature and life and education that makes one feel that it will not go as far as it ought—that it really falls between two stools, forsaking the sunny bench of educational and critical impressionism, and yet not attaining the austere seats of pedagogical science.

PORTER LANDER MACCLINTOCK

Rhetoric and English Composition. By GEORGE R. CARPENTER. New York: The Macmillan Company, 1906. Pp. 430. \$1.10.

There is to both teacher and pupil a decided advantage from having the courses in grammar and rhetoric combined as closely as possible. The two textbooks on these subjects prepared by Mr. Carpenter secure this association to

a degree; the grammar giving practice in the art of composition as well as in the analysis of sentences into their elements and in the classification of these; the rhetoric serving to keep the principles of grammar well in mind. Perhaps one may think that in too many instances the errors of speech are pointed out by the use of italics, inasmuch as the ability to detect the error is the more important matter in correcting faults. Again, it may be remarked that there are more ways than one of correcting a mistake, and that it is of first importance that the right way be followed. Take, for instance, the first example on page 44: "I should be astonished if you *succeed* in doing anything of the sort." Here the verb in the condition is the one marked as being wrong. This is upon the supposition that the former verb is correct, but the chances are even that "should" was wrongly written for "shall." When the pupil has learned that in a majority of cases there are two ways at least of correcting a blunder, he will soon form the habit of looking in more than one place for the fault. If the errors are not marked for him, he will become the more skilful.

But this has been said simply for the hint to be taken from it by teachers. Of the volume in hand much may be said in praise. It affords the teacher a good manual of theory and of practice; but no matter how excellent may be a textbook, each class and each member of every class will require individual instruction.

The illustrative examples are well selected with reference to teaching rhetoric. They are chiefly taken from writers of fiction, and these the popular writers of the day. As pupils imbibe a taste for reading from what they read, it is desirable that the very best literature be put before them, that their taste be formed upon correct models. A more informing literature could have been recommended to them by substituting for some of these novelists authors of a higher rank in the literary world. The plan of giving to fiction so great prominence in courses of required reading for entrance examinations has been tried long enough to judge of results. The public may reasonably call for higher standards all along the line of instruction in English.

ISAAC B. CHOATE

Boston, Mass.

Books, Culture, and Character. By J. N. LARNED, formerly Superintendent of Education, and of the Public Library, Buffalo, N. Y., and President of the American Library Association. Boston: Houghton, Mifflin & Co., 1906. 16mo. \$1 net.

In academic circles in his own city the late John Fiske, after he had acquired a national reputation as a lecturer and writer, was always spoken of by the philosophers as "a historian, we understand, of great authority;" and by the historians as "a philosopher, we understand, of high authority." The other day in the same liberal community, a member of the Harvard history department, in an address to teachers, made the generous concession (in reply to queries) that if they had Larned's books, they might use them; but it wasn't much worth their while to get them—"he was a librarian." In the same spirit, they might say of this book that it is a reprint of a librarian's addresses on

somewhat trite subjects in a commonplace manner—without sure touch of originality or illuminating spark of literary style. In the above circles the like probably has been said; but even if it were literally true, the book would still be well worth our reading. If no exposition of themes forever alive is to be appreciated unless conspicuous for originality in substance and for novelty in literary form, few new books "should see salvation."

Now, while there is much that is not new—commonplace, if you will—in these essays and addresses, still there is much common-sense, sound doctrine, and courage to assert it in the face of more fashionable theories.

"Tell men what they knew before
Paint the prospect from their door."

A review of the old questions from a new point of view is wholesome for teacher and pupil, even if the point of view is not that of a Matthew Arnold, or a Frederick Harrison, or a Carlyle, but only of a librarian. His experience is quite as likely to resemble our own; for example, in the first paper, "A Familiar Talk about Books," he says: "To memorize great poems in early life is to lay a store in the mind for which its happy possessor can never be too thankful in after-years. I speak from experience, not of possession of such a store, but of the want of it. I have felt the want greatly since I came to years when memory will not take deposits graciously, nor keep them with faithfulness, and I warn you that if these riches are to be yours at all, you must gather them in your youth." In the reading recommended in this chapter is included "the collected writings of Abraham Lincoln, which are the most lasting literature, excepting, perhaps, Emerson's *Essays*, that America has produced"—a piece of good critical judgment. Emerson's

"That book is good
Which puts me in a working mood"

might well have been chosen for the motto of the next essay, "The Test of Quality in Books," which with sane sobriety bids "beware the literature of the school which preaches 'art for art's sake.'" His test, "Does the book leave any kind of wholesome and fine feeling in the mind of one who reads it?" is not that which determines the "best sellers" of any age.

"Take your history from the greater writers—from the historians who treat it in the largest way, with the amplest knowledge, the most illuminating thought, the clearest style," is characteristic of his "Hints as to Reading." The "Mission of the Book" is to inspire a feeling for "education as a supreme good in itself—not merely as a bread-winner or a money-making instrument—but in and of and for its own sake, as a good to humanity which surpasses every other good, save one;" and the "Missionaries of the Book" are teachers and librarians. In this essay and in "Good and Evil from the Printing Press" and "Public Libraries and Public Education" we have a concise history of the origin and development of periodical literature, library organization, and the co-operative devices by which public education has gained from the increased efficiency of all combined. The character of the last and newest paper (May, 1906), "School-teaching v. School-teaching of History," may be inferred from the remark of our history teacher: "You may be able to get into the kingdom of heaven that way,

but you can't into Harvard College." Yet the appeal for a more humanistic teaching of history and the straightforward attack upon many sophistical subtilities of the present day commend the book to those who are not bored by plain good intention and right-minded common-sense.

GEORGE H. BROWNE

BROWNE AND NICHOLS SCHOOL
Cambridge, Mass.

BOOKS RECEIVED

EDUCATION

- A Liberal Education.* With an Appendix containing a list of five hundred best books. By CHARLES WILLIAM SUPER. Syracuse: C. W. Barden, 1907. Pp. 105.
- The Teaching of Modern Foreign Languages and the Training of Teachers.* By KARL BREUL. Cambridge: University Press. Pp. xi+156. \$0.60.
- Suggestions for the Teaching of Literature in the Grades.* The University of Cincinnati Teachers' Bulletin, Series III, Vol. II, No. 8, December 1906. By EMILIE WATTS McVEA. Cincinnati: University of Cincinnati Press.
- Indiana University, 1820-1904: Historical Sketch, Development of the Course of Instruction, and Bibliography.* Edited by SAMUEL BANNISTER HARDING. Bloomington: University of Indiana, 1904. Illustrated. Pp. xiii+348.

ENGLISH

- Elementary English Composition.* By TULEY FRANCES HUNTINGTON. New York: The Macmillan Co., 1907. Pp. xvi+357. \$0.50.
- Henry Wadsworth Longfellow. A Sketch of His Life, together with his Chief Autobiographical Poems.* By CHARLES ELIOT NORTON. Boston: Houghton, Mifflin & Co., 1906. Pp. 121.
- The Heart of Hamlet's Mystery.* Translated from the German of KARL WERDER by ELIZABETH WILDER; with Introduction by W. J. ROLFE. New York & London: G. P. Putnam's Sons, 1907. Pp. 223.
- Hudson's Essays on English Studies.* Edited, with Preface, Introduction, and Notes, by A. J. GEORGE. Boston: Ginn & Co., 1906. Pp. xxii+206. \$0.75.
- Hawthorne's Tanglewood Tales.* Edited for School Use by ROBERT H. BEGGS. New York: The Macmillan Co., 1907. Pp. 210. \$0.25.
- Robert Browning's Cavalier Tunes, The Lost Leader, and Other Poems.* Edited, with Introduction and Notes, by M. A. EATON. Boston: Educational Publishing Company, 1906. Pp. 83. Cloth, \$0.25; paper, \$0.10.

MATHEMATICS

- The Teaching of Mathematics.* By J. W. A. YOUNG. New York: Longmans, Green & Co., 1907. Pp. xviii+351. \$1.50.

SCIENCE

- A Smaller Chemical Analysis.* By G. S. NEWTH. London & New York: Longmans, Green & Co., 1906. Pp. 147.

GERMAN

- Scheffel's *Der Trompeter von Säkkingen*. Edited, with Introduction, Notes, Vocabulary, and Repetitional Exercises, by HERBERT C. SANBORN. Boston: Ginn & Co., 1906. Pp. xxvi+590. Illustrated. \$0.90.
- Goethe's *Iphigénie auf Tauris*. Edited, with Introduction, Notes, Repetitional Exercises, and Vocabulary, by PHILIP SCHUYLER ALLEN. Boston: Ginn & Co., 1906. Pp. xlii+218. \$0.50.
- A German Science Reader*. With Notes and Vocabulary. By WILLIAM H. WAIT. New York: The Macmillan Co., 1907. Pp. ix+321. \$1.

SPANISH

- Alarcón's *Novelas Cortas*. Edited, with Notes, Exercises, and Vocabulary, by WILLIAM FREDERIC GIESE. Boston: Ginn & Co., 1906. Pp. 234. \$0.90.

NOTES

Dr. George R. Parkin, agent of the Rhodes Scholarship Trust, writes: "I hear from Oxford that the average work done this time has been higher than ever before, and the proportion of the candidates who have passed the examination is greater. . . . From communications I have had with many of the states I am satisfied that an appreciation of the advantages to be gained from the scholarships is steadily growing. I was informed from several states that the candidates undergoing examination were among the best that the state could produce."

The following is a list of the candidates for the Rhodes Scholarships who have passed the Responsions Examination of the University of Oxford in the recent examination held throughout the United States. Out of 215 candidates, 138 passed this qualifying test; the remainder failed to satisfy the examiners.

Candidates who have passed the examinations in previous years are eligible for election in competition with those whose names are now given, provided they fulfil the other conditions of eligibility—as stated in the regulations of the Trust.

Candidates who have passed should now forward to the chairman of the Committee of Selection in each state such credentials and testimonials as will be helpful to the committee in selecting the scholars for the present year. The election is to be completed in each state and the name of the successful competitor notified to the Trust before April 15. Elected scholars enter into residence at Oxford in October, 1907.

G. R. PARKIN

MCGILL UNIVERSITY, MONTREAL
February, 1907

Alabama—J. J. Rodgers, A. White.
 Arizona—None.
 Arkansas—M. L. Caldwell, J. J. James, C. A. Keith.
 California—H. A. Clarke, C. S. Forncrook, B. H. Jones, H. B. Thomas.
 Colorado—Fred D. Anderson, A. S. Chenoweth, D. S. Tucker.
 Connecticut—H. F. Bishop.
 Delaware—H. G. Cochran, C. A. Southerland.
 Florida—B. Blackman, W. T. Stockton.
 Georgia—Dudley B. Anderson, N. A. Goodyear, R. P. Walker.
 Idaho—B. D. Mudgett, McK. F. Morrow.
 Illinois—Lee R. Blohm, C. W. David, H. J. Gee, J. J. Lynch, D. E. Murphy,
 B. Tomlinson.
 Indiana—I. Osborne.
 Iowa—R. W. Clack, J. W. Woodrow.
 Kansas—Warren A. Ault, C. S. Braden, F. B. Bristow, L. E. Urner.
 Kentucky—G. W. Campbell, W. S. Hamilton, W. Stuart.
 Louisiana—J. H. Jackson, C. F. Zeek.
 Maine—L. Bonney, H. M. Ellis, W. C. Jordan, B. F. Keith.
 Maryland—W. N. Doub, W. D. Wallis.
 Massachusetts—C. Benton, C. H. Haring, F. Livesey, A. LeR. Locke, R. W.
 Rosenberg, C. A. Wilson, B. M. Woodbridge.
 Michigan—L. C. Hull.

Minnesota—T. A. Buenger, L. A. Frye.
 Mississippi—R. C. Beckett, T. T. McCarley, A. Williams, A. Wood.
 Missouri—W. Cross, W. E. Dandy, M. B. Giffen, L. D. Jennings.
 Montana—J. R. Thomas.
 Nebraska—S. M. Rinaker, J. E. Smith, H. A. Whitehorn.
 Nevada—A. L. St. Clair.
 New Hampshire—D. W. Heistand, J. R. McLane.
 New Jersey—S. A. Devan, W. Elsing, R. H. Hansl, D. G. Herring, J. A. Muller, P. K. Rogers, P. L. Urban, E. W. Walker.
 New Mexico—None.
 New York—B. Campbell, C. J. Costello, C. D. Heaton, F. P. Lyons, L. K. Richardson, R. M. Scoon.
 North Carolina—B. R. Lacy.
 North Dakota—G. R. Vowles.
 Ohio—R. Burroughs, D. P. Handyside, A. J. W. Horst, L. E. Myers, S. T. Wing.
 Oklahoma—J. T. Brooke, E. W. Burgess, E. K. Kline, W. C. Mongold.
 Oregon—C. B. Hamble, L. M. Johnson, W. W. Johnson, C. K. Lyans, E. J. Winans.
 Pennsylvania—M. A. Dickie, W. L. Hemphill, E. T. Horn, A. P. Kelso, C. J. Ruch, G. Wanger.
 Rhode Island—Z. Chafee, R. N. Dennett, G. Hurley.

Some Important Recent Books

Moore and Miner's Business Arithmetic

Develops arithmetic as an effective tool for rapid and accurate calculation and gives a broad, business training in the subject.

Millikan and Gale's First Course in Physics

A new book which has been received with enthusiasm and has worked a profitable revolution in hundreds of physics classes the country over.

Collar's First Year German

A year's work for beginners, combining the natural and grammatical methods. Used in many of the best schools, with strikingly good results.

Wentworth's Elementary Algebra

This masterpiece in the Wentworth series contains several new features, such as graphs and exercises in physics and nearly 4,000 new problems.

Myer's Revised Ancient History

In its new form this work seems destined to remain the standard for the present generation as it has been for the past.

Ginn & Company, Publishers

Boston New York Chicago London Oakland Atlanta Dallas Columbus
 Chicago Office: 378-388 Wabash Ave., Chicago

South Carolina—C. S. Brice, J. H. Taylor.
 South Dakota—M. A. Brown, V. K. Brown, G. W. Norvelle.
 Tennessee—S. W. Ayres, H. M. Gass, J. Hinton, Silas McBee.
 Texas—H. L. McNeil, D. A. Skinner.
 Utah—R. W. Hartley.
 Vermont—J. M. D. Olmstead, C. C. Wilson.
 Virginia—G. W. Cahoon, A. P. Gray, N. D. Smithson.
 Washington—S. H. Blalock, F. J. McArdle.
 West Virginia—R. P. Strickler.
 Wisconsin—E. A. Hooton, P. A. Knowlton, T. J. McLernan, F. L. Schneider,
 D. H. Stevens, A. B. West.
 Wyoming—None.

The Supreme Court of Iowa has held that a rule of a school board forbidding pupils to play football under the auspices of the school is binding even during holiday time and away from the school ground.

In an article on "The Place of Athletics in Secondary Schools," in the *American Physical Education Review*, William Orr gives a discriminating statement concerning the amount and kinds of exercise suited to the different ages and sexes. He maintains the need of close personal supervision, and urges that, although the youth's craving for athletics proves their general utility, yet, "especially during the first two years of high school, there is grave danger from overexertion" in some forms of contest. As far as girls' athletics are concerned, Mr. Orr would not allow contests between rival schools, urging that the intensity of excitement is psychically as well as physiologically injurious.

"More than one-half million dollars a year," says the *Educational Exchange* of Alabama. "The present legislature has been generous to the schools beyond the expectation of the most sanguine friends of education." And this is not counting increased appropriations to the university, and several other large items.

The *School World*, of London, comments very critically in its last number on the percentage of women teachers in American public schools. Figures given for some of the larger cities (cities are found to be worse than more rural communities in this respect) are:

	Male Teachers	Female Teachers
Boston.....	283	1,997
New York.....	1,166	11,408
Chicago.....	301	5,015
Philadelphia.....	187	3,503

The article concludes with a sarcastic comment on the teaching of "civics" by "a person who has no vote, no personal acquaintance with the workings of political institutions, and no interest in the political problems of the day."

Dr. G. Stanley Hall's article in the *Independent*, on "Play and Dancing for Adolescents," has been copied in the *Western School Journal* and is

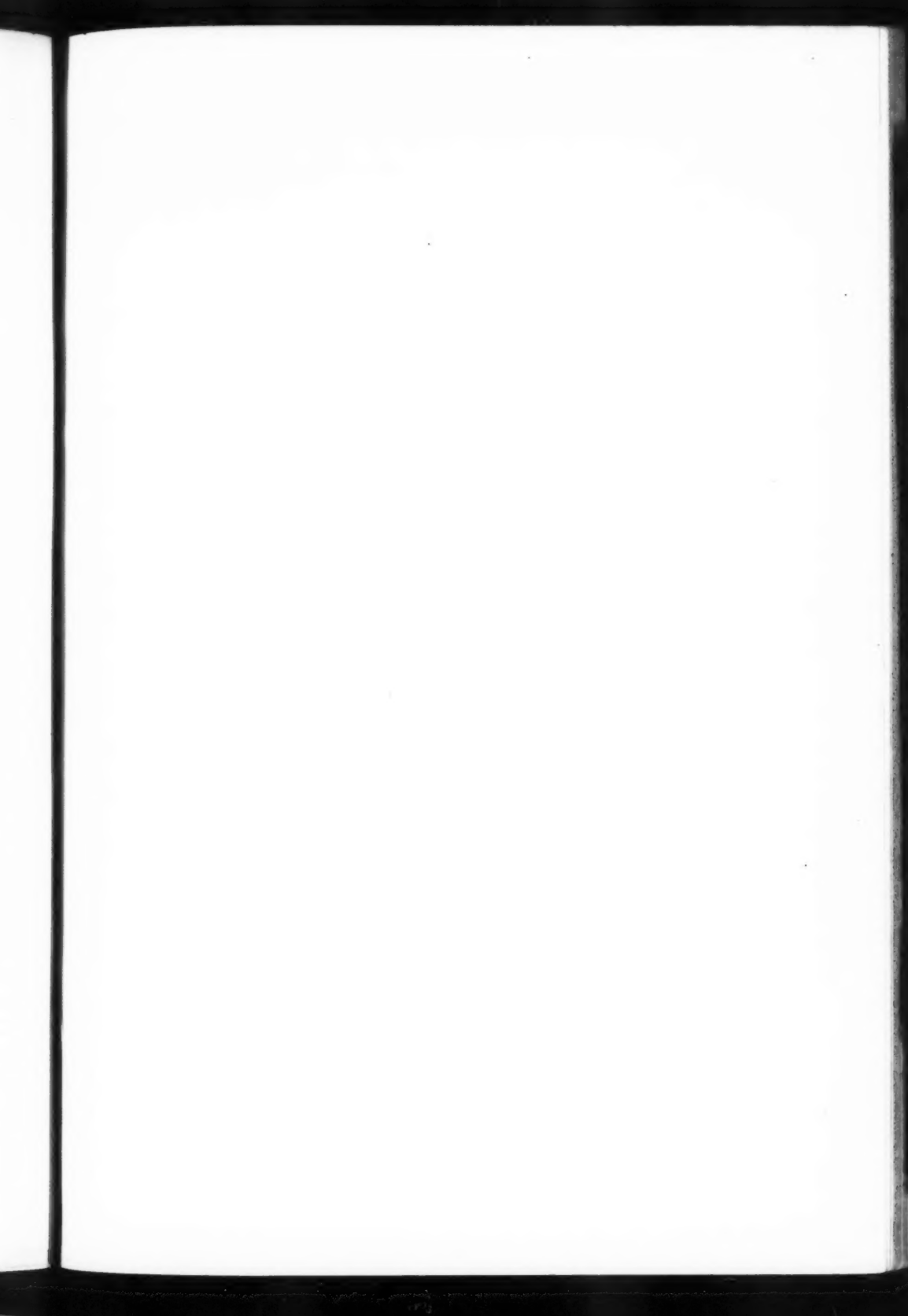
receiving comments from many sources. It bids fair to lead to some practical consideration of the value of old-fashioned dances in public schools. Dr. Hall takes care to state that his statements have no reference to the waltz and the two-step, which he considers "wretched relics."

The report of the Massachusetts commission to investigate industrial education states that thousands of children waste the first two years after leaving grammar school and before finding occupation. Presumably they do not go to the high schools because they do not find them "practical" enough. This shows a decided opening for industrial education.

And now from England also comes a plea for the revival of the old country-dances, such as the morris dance, as a physical exercise and a training in graceful self-expression for school children. Mr. Cecil Sharp has made a systematic study of these dances, and the "water-rats" of London are to be collected on the playgrounds of the council schools and taught "the free self-development known to open-air children of earlier generations." This under the leadership of the "Guild of Play."

A reformation of the system of Latin pronunciation is under way in England. The Board of Education decrees a uniform usage, modeled after that approved by the Philological Societies of Oxford and Cambridge. This is to be rigidly enforced, in all secondary schools, especially in the younger classes, and should have an effect in making the English usage conform more nearly to that of other countries.

"The adjustment of high-school work to the needs of the community," as advocated by Dr. G. E. Myers in the last *Atlantic Educational Journal*, is going on in many places. In the high school at Colorado Springs unusual attention is given to geology and chemistry, because of the community's interest in the gold-mining near by. The Waterford High School, in a rural county of Pennsylvania, gives a four-year course in agriculture, in spite of the fact that its faculty is limited to three teachers. Special "trade high schools" in cities are another instance of this new movement in American education—a movement which is enormously rich in possibilities.





POLYTECHNIC HIGH SCHOOL, LOS ANGELES, CAL

POLYTECHNIC HIGH SCHOOL, LOS ANGELES, CAL